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UNIVERSITY OF ALBERTA

PRESERVING THE SELF: WOMEN HAVING CARDIAC SURGERY

by

KATHRYN MARGARET KING ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfilment of the requirements for the degree of Master of Nursing.

FACULTY OF NURSING

EDMONTON, ALBERTA

SPRING 1993

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FACULTY OF GRADUATE STUDIES AND RESEARCH

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N. Keating
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Date: 93-03-19

With love and gratitude, I dedicate this to my parents, Tom and Jean; my sister, Pat; and especially to my sons, Andrew and Kevin.

ABSTRACT

The purpose of this study was to explore the process that women undergo when having cardiac surgery. Currently, information about women who have cardiac disease and subsequent surgery is based on what is known about men. This information cannot always be adequately or correctly transferred between genders.

A grounded theory method was used to gain a preliminary understanding of the process that women undergo when having cardiac surgery. Ten women who had cardiac surgery at a major referral centre, participated in this study. Through theoretical sampling, and rigorous analysis of interview transcriptions and fieldnotes using the constant comparative method of analysis, a beginning understanding was developed about the unique process for women having cardiac surgery.

Definitive phases delineate having cardiac surgery; waiting, getting there, surviving, being there, and moving on. Furthermore, the women in this study, utilized a number of strategies aimed at getting through this experience; relating with others, as well as making sense of, taking control of, and normalizing what was happening to them through the phases of having cardiac surgery. These behaviours engaged in by the women, were directed toward getting through the surgical experience, from onset of illness to recovery, with as little disruption to their perception of self. Thus, the core category which emerged from this study was ‘preserving the self’.

By having a clearer understanding of the perspective of women who have cardiac surgery (not simply identifying that women do not fit into the male model of this experience), nurses will be able to participate more effectively with women through their cardiac surgery.

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CHAPTER 1

Introduction

> Because of the special role the heart plays in our psychic life, heart surgery, though common, is never commonplace... the emotional impact this surgery has on the patient makes it enormously different from surgery on any other part of the body. (Blancher, 1987, p. 44)

Cardiac disease is a significant cause of morbidity and mortality in women (MacPherson, 1992; Murdaugh, 1986; Murdaugh & O'Rourke, 1988; Weinblatt, Shapiro, & Frank, 1973). This is particularly so in post-menopausal women, as "normal estrogen levels in pre-menopausal women confer protective benefit against the development of ischemic heart disease" (Reeder, Lauzon, Mao, Nair, & Petrasovits, 1991, p. 3). As identified by Meagher (1988), although women constitute a small proportion of "the total IHD (ischemic heart disease) population and experience an MI (myocardial infarction) or acute coronary insufficiency at a later age than men, cardiovascular disease is the leading cause of death and disability for the female population in industrialized countries" (p. 12). Ayanian and Epstein (1991) report that since 1950, the incidence of ischemic heart disease has declined among men, while actually increasing among women. Although no single reason for this phenomenon has been identified, it is thought that increased use of oral contraceptives, increased incidence of smoking, and increased incidence of women holding high stress jobs and having multiple role expectations in the family, are contributing factors (Boogaard, 1984; Murdaugh, 1986; Meagher, 1988; Murdaugh & O'Rourke, 1988).

Coronary artery disease, though less prevalent in women (Reeder et al., 1991), can no longer be as once commonly considered, a disease of middle aged men. Furthermore, there is a higher incidence of rheumatic fever in women, leading to higher rates of rheumatic heart disease and numbers of women (as compared to men) requiring valve surgery (Rankin, 1990). The increased incidence in coronary artery disease and higher incidence of rheumatic heart disease in women, renders more women experiencing the often necessary surgical intervention. Despite these trends, little attention has been given to women having cardiac surgery as a relevant and legitimate concern for study.

It is both unrealistic and unfair to women who undergo cardiac surgery to base nursing care and expectations for their recovery on what has been learned from a traditionally male dominated arena of research; male dominated not only by who was *being* researched, but also by who was *doing* the research. Belenky, Clinchy, Goldberger, and Tarule (1986) further this argument when stating that by "drawing on their own perspectives and visions, men have constructed the prevailing theories, written history, and set values that have become guiding principles for men and women alike" (p. 5). This practice of trying to fit women into the prevalent male models, can no longer be tolerated as valid from neither a research (MacPherson, 1992) nor feminist perspective (Belenky et al., 1986; Fransella & Frost, 1977; Miller, 1986, 1991; Sampselle, 1990).

In fact, over the last decade, sex differences and gender biases in the area of cardiovascular health have been identified and recognized as problematic for women and those caring for women. Attempts have been made to rectify the problem of having a dearth of well researched information about the care of women who have cardiac disease and cardiac surgery. This more recent research has often focused on the diagnosis and treatment of women with cardiac disease and has been done primarily by medical and clinical researchers. Sharpe, Clarke, and Janz (1991) contend that "comparatively few women have (however) been included in the large heart-related clinical trials conducted to date... (and) since this literature has a clinical focus, an even greater gap remains in our understanding of the impact of heart disease (and heart surgery for that matter) on the daily lives of... women" (p. 26). Female nurses are in the ideal position to take a research approach both from a women's and nursing perspective that will enhance understanding of women's experience of having cardiac surgery. As feminist therapist Lerman (1987) writes, "our best work comes out of our experience as women working with women. Only if our theory remains close to and within the world of women can it be truly a woman-based theory" (p. 46).

Despite cardiac disease being a major cause of morbidity and mortality in women and available research suggesting that women have more difficulties during recovery from cardiac surgery, there has been a paucity of research that focuses on the specific process which women endure when having cardiac surgery. The purpose of this study therefore, was to take on the task of developing an understanding of the impact of cardiac surgery on the lives of women. What is it like for women to have cardiac surgery? Furthermore, this research was seen as a means of increasing nursing knowledge regarding what women endure and perceive when having cardiac surgery. With this knowledge, nurses will be in a much more effective position to participate with women in their cardiac surgery experience.

CHAPTER 2

Review of the Literature

Women have cardiac disease, both ischemic and rheumatic in nature, and often require surgical intervention. Yet, until recently, little acknowledgement has been given to the possibility that the way in which women's cardiac disease is diagnosed, treated, and experienced, could be different than that of what has previously been learned about men. Attempts to identify aspects of cardiac disease and treatment which are unique to women have been muddled by use of models based on predominantly male experiences. This approach has been only marginally successful in identifying clinical differences and unsuccessful in identifying the nature of women's cardiac surgery experience. To date, few studies have approached women's cardiac disease and treatment from a solely female perspective. This is not to say that the research that has been done in an effort to reveal these differences in men and women having cardiac surgery has been valueless. What needs to be said is; though one can extract from the current literature some fragmented indications of what having cardiac surgery might be like for women, without the appropriate research question and methods, gaining this insight will not be possible. Having said this, it is important to be aware of what has been identified through research in this area.

Although there has been interest in the experience of patients undergoing valve surgery, there is a much greater proportion of available research regarding coronary artery bypass graft surgery. This author initially chose to study women having cardiac surgery in the context of either valve or coronary artery bypass graft surgery. There are a number of similarities in the illness, procedure, and recovery from these surgeries, that would lend credence to this decision. Furthermore, researchers (Jenkins, Stanton, Savageau, Denglinger, & Klein, 1983; Rankin, 1989) have concluded that patients who have had valvular and coronary artery bypass surgery recover similarly, and have thus used both valvular and coronary artery bypass surgical subjects when studying recovery from cardiac surgery (Gortner et al., 1988; Rankin, 1990). When reviewing the literature, studies of both valve and coronary artery bypass graft surgery will be utilized, though disproportionately, as less interest has been demonstrated in studying psychosocial aspects of those who undergo valve surgery than coronary artery bypass graft surgery.

Recent research about sex bias and gender differences in coronary bypass surgery reveal that women's cardiac disease is likely more advanced when they are finally referred for coronary artery bypass surgery. Women also experience a higher rate of morbidity and mortality intra-operatively and following coronary bypass surgery than their male counterparts (Bickell et al., 1992; Fisher et al., 1982; Khan et al., 1990; Richardson & Cyrus, 1991; Tobin et al., 1987). The process of recovery has been identified as longer for women than for men (Brown & Rawlinson, 1975). Furthermore, studies have demonstrated that women do not recover well enough to glean long term positive benefits from cardiac surgery as well as men, neither physically nor psychologically (Douglas et al., 1981; Parchert & Creason, 1989; Penckofer & Holm 1990; Rankin, 1990; Sokol, Folks, Herrick, & Freeman, 1987; Stanton, Jenkins, Savageau, & Thurer, 1984; Yates, 1987). Women are also less likely to have symptomatic relief of chest pain following cardiac surgery than men. Consequently, they are less able to resume preoperative role functioning than men (Ayanian & Epstein, 1991; Steingart et al., 1991). Boogaard (1984) and Mikus (1986) identify similar problems when looking at women's recovery from myocardial infarction.

When studying subjects who have cardiac surgery, the researcher must be cognisant that cardiac surgery is a 'multidimensional phenomenon' encompassing both physical and psychosocial variables (Allen, 1990; Mayou, 1986; Radley & Green, 1985; Stanton, Jenkins, Savageau, & Thurer, 1984). Some authors build on this by stating that physical factors are likely to be enhanced by considering psychosocial adjustment in the process of having cardiac surgery (Brown & Rawlinson, 1975; Gundle, Reeves, Tate, Raft, & McLaurin, 1980; Jenkins, Stanton, Savageau, Denglinger, & Klein, 1983). Although physical and psychosocial aspects of having cardiac surgery are clearly interrelated, for clarity, they will be addressed separately.

Technological and Pharmacological Factors Affecting Women Who Have Cardiac Surgery

Information regarding potential differences between men and women in diagnostic testing is limited (Bickell et al., 1992; Douglas et al., 1981; Khan et al., 1990; Kindwall, 1985; Murdaugh, 1986; Murdaugh & O'Rourke, 1988; Tobin et al., 1987; Wenger, 1985). Steingart et al. (1991) identify that "many noninvasive tests used for the evaluation of coronary artery disease are believed to be less accurate in women than in men" (p. 226). For example, Murdaugh and O'Rourke (1988) acknowledge the difficulty in diagnosing coronary artery disease in women as "abnormal cardiac physical findings are uncommon. The ECG may show nonspecific ST-T wave changes and the exercise test is positive in approximately 20% of cases" (p. 111). Furthermore, ECG stress testing and radionucleotide testing have been found less accurate in women. Women may, through these tests, be deemed without cardiac disease, yet may still be suffering some ischemic sequelae that could leave them more vulnerable as future operative risks

(Kindwall, 1985; Murdaugh & O'Rourke, 1988; Steingart et al., 1991; Wenger, 1985).

With pharmacological interventions, clinical drug trials concerning the safety and efficacy of commonly used cardiac drugs have been performed predominantly in men, with little attention being given to potential differences (Kindwall, 1985). One example of these potential differences, which Murdaugh and O'Rourke (1988) identify is that "women are more likely to have Raynaud's phenomena, and this vasospastic arterial disease can be exaggerated by the beta-blockers, especially the nonselective agents" (p. 120). Administration of nonselective beta-blockers in women can pose difficulties less likely to occur in men.

Physical Factors Affecting Women Who Have Cardiac Surgery

Physical factors which pose difficulties for women facing cardiac surgery will be addressed in this section. These factors can affect women at any or all times through having cardiac surgery; from the onset of the disease process to the recovery from surgery. One such factor which women possess affecting their success with coronary artery bypass surgery, is their smaller coronary arteries (as compared to the larger arteries generally found in larger male hearts). These smaller coronary arteries can occlude faster, make anastomosis in coronary artery bypass surgery more difficult, and with smaller graft flow present a risk for reduced graft patency (Douglas et al., 1981; Fisher et al., 1982; Rankin, 1989).

Women are usually older when they are referred for surgery (Douglas et al., 1981); partially due to the positive influence of their premenopausal hormones (MacPherson, 1992; Reeder et al., 1991). The advanced age of women being referred for surgery can negatively influence the outcome of their surgery (Richardson & Cyrus, 1991).

Women are often at an advanced stage of illness when having cardiac surgery, as they are usually referred for treatment later in the course of their disease (Khan et al., 1990; Ayanian & Epstein, 1991). The factors which lead to this phenomenon are three fold. First, women more commonly have atypical symptomology. This leads to delayed diagnosis and consequently, women are referred for treatment when the disease is more advanced (Bickell et al., 1992; Khan et al., 1990; Tobin et al., 1987). Second, though women are also more likely to have some symptoms of angina pectoris (chest pain) than men, they are more likely to have angiography suggestive of normal coronary arteries (Weinblatt et al., 1973). Third, this atypical symptomology often leads to misdiagnosis of the nature of women's illness, as women are more likely to be labled as having problems which are psychological, rather than physical in nature (Rankin, 1989; Steingart et al., 1991;

Tobin et al., 1987). Furthermore, women commonly have concomitant disease processes, particularly diabetes and hypertension, which often complicate their prognosis (Douglas et al., 1981; Richardson & Cyrus, 1991; Steingart et al., 1991).

Following surgery (and myocardial infarction), women return to performing physical activities with higher energy requirements and resume household and role related activities sooner than their male counterparts (Boogaard, 1984; Douglas et al., 1981; Johnson, 1988; Mickus, 1986; Sharpe et al., 1991). "Women increase their activity levels by performing more household activities, which are primarily anaerobic in nature and are therefore of little benefit in improving cardiovascular functional capacity... Men, on the other hand, engage in aerobic exercise such as walking and structured rehabilitation programs, thereby improving their cardiovascular function by progressively increasing endurance and energy expenditures" (Parchert & Creason, 1989, p. 58). Consequently, when considering the physical factors which may affect women who have cardiac surgery, from the onset, the prognosis is more grim than for men.

Psychosocial Factors Affecting Women Who Have Cardiac Surgery

Aspects of psychosocial factors which may affect women who have cardiac surgery will be addressed in this section. As with the physical factors, the psychosocial factors can affect women in any or all phases of having cardiac surgery. Although there have been a number of attempts at identifying and quantifying the differences between men and women in regards to psychosocial aspects of cardiac illness and recovery from cardiac surgery, this research has generally been approached with the aim of identifying how women differ from men; little research effort has devoted attention to how women perceive, or what factors contribute to, the perceptions that women hold of this experience, and hence how women are able to act on those perceptions. Furthermore, as Penckofer and Holm (1990) identify, research in this area is not consistent in it's findings. Nonetheless, research has bore identification of a number of common themes which underlie the psychosocial encounter of women who have cardiac surgery. It is these common themes that will be addressed in this review.

Researchers (Brown & Rawlinson, 1976, 1977; Connors, 1985; Hibbard & Pope, 1983; Nadelson, 1983; Nathanson, 1975) have suggested that women's socialization experience allows them to report more psychological disturbances, such as feelings of depression and anxiety than do men. Women have, thus been labelled as the 'weaker sex' and the psychological experience of women's illness has been identified as less effective. Others (Bickell et al., 1992; Steingart et al., 1991; Tobin et al., 1987), suggest that the expression of the nature of the illness experience, may account for the differences in treatment selection for women. "For example, it is possible that men and women perceive and express symptoms and limitation of activity differently or that physicians hear and interpret these expressions differently" (Bickell et al., 1992, p. 796). Brown, Buchanan, and Hsu (1978) concur when they state that "the patient's sick role behaviour is a product not only of the attitudes and expectations of the patient, but of the attitudes and expectations of the health professionals as well" (p. 38). As Bickell et al. (1992) found, since female patients are more likely to be labelled as emotional and have their illness symptoms characterized as psychosomatic, and since patients with psychological problems are less likely to be referred for invasive cardiac testing, women are indeed less likely to be referred for this testing.

Psychological disturbances, such as depression and anxiety, have also been identified as being more frequently reported by women waiting to have cardiac surgery (Rakoczy, 1977). It has not been made clear in the literature whether women, who have been known to generally report symptoms consistent with anxiety and depression at a much higher rate than men, are reporting these symptoms more because of the surgery or because it is socially more acceptable for them to admit to these feelings. Heller, Frank, Kornfeld, Malm, and Bowman (1974) identified that "in fact, poor preoperative psychological adjustment was more strongly associated with hindrances (to improving postoperatively) than was the actually physical outcome" (p. 913).

In addition, psychological disturbances have been cited as problematic for women, and more likely to occur in women following cardiac surgery (Douglas et al., 1981; Kos-Munson, Alexander, Hinthorn, Gallagher, & Goetz, 1988; Wilson-Barnett, 1981), and following MI (Boogaard, 1984; Mickus, 1986). However, there have been some recent studies which conflict with these previous findings by identifying that there is actually little or no difference between men and women with regard to psychological disturbances, when comparing pre and post operative ratings of anxiety and depression (Rankin, 1990; Sokol et al., 1987). These researchers again raise the question of social versus physical causes to the reporting of these symptoms.

Kimball (1969a, 1969b) identified in his study of patients having cardiac surgery, that "the over-all adjustment in terms of life functioning in patients following surgery closely correlate with their pre-morbid personality patterns and psychological adjustment" (1969b, p. 895). O'Connor (1983), when studying men who had cardiac surgery, concurred. Brown and Rawlinson (1975) found that "those persons who were more reluctant to assume the sick role before surgery were more eager to exit from it, whereas those who had become confirmed in their sick role attitudes before surgery found it more difficult to surrender that role afterwards" (p. 21). Perhaps this phenomenon explains the nature of the conclusions of the studies previously identified; that although psychological disturbances may hinder overall recovery from cardiac surgery, they may not in fact occur as a result of the surgery, and may actually reflect the psychosocial attributes with which the person enters the surgical event. It is particularly important that these attributes be understood in order to see the individual through this experience as successfully as possible. Misra, Bain, and Mahmood (1982) concur, having identified that the critical difference in those who recover successfully and unsuccessfully from cardiac surgery, "is the degree to which they readjust to the post-operative life, in emotional, social, work and sexual (or psychosocial) areas" (p. 264). More specifically, researchers may need to address the question 'What psychosocial characteristics does the individual woman bring with her when having cardiac surgery?'.

Another psychosocial factor which has been identified as potentially influencing women's experience of cardiac disease and surgery is that of women's social role. Fowlkes (1987) identifies that the "relationships of everyday life are intrinsically social. Individuals consistently act and interact according to culturally prescribed understandings of what is appropriate and expected of them " (p. 3). Although, differences in determining self-identity are not necessarily a gender-based phenomenon, while men use a context of separation and autonomy to develop their sense of identity, women tend to do so in the context of relationships and connections to others (Belenky et al., 1986; Gilligan, 1982, 1987; Miller, 1986, 1991; Nadelson, 1983; Parchert & Creason; 1989). Therefore this tactic, of coming to understand women's social role or social context, may be particularly useful when developing an understanding of women's health care (Collier, 1982).

When considering women's social role, marital status, employment status (whether she works inside or outside the home), children (number and their age) and role expectations from herself and her family (Murdaugh, 1986; Nadelson, 1983; Steil & Turetsky, 1987) have been identified as pertinent. These components are highly integrated as they comprise women's social role. Furthermore, they influence both psychosocial experience and, as Kimball (1969a, 1969b) purports, potential physical outcome of cardiac surgery.

It is apparent, that when studying the effects of multiple roles on psychological well-being, "there has been a shift in focus away from the stressful and toward the beneficial effects of occupying different roles" (Gove & Zeiss, 1987, p. 125). Though multiple role expectations were once considered to have a solely deleterious effect on women's health (Brown & Rawlinson, 1976, 1977; Gove, 1978; Marcus & Seeman, 1981); Hibbard and Pope (1985) as well as Waldron and Jacobs (1989) claim that multiple roles for women can be considered health enhancing. The historical context in which this research was done is important to note as changing expectations for women in society may well have had an effect on the experience of women and interpretation of that meaning by researchers. Very generally, more recent studies on gender and multiple social roles demonstrates that women who are happily married, have fewer children (or who's children are grown), work in higher paid/higher status positions outside the home, and have families (particularly husbands) that function to support them in these multiple roles, seem less likely to experience the depression, anxiety, and poorer emotional adjustment, usually identified as more common in women (Steil & Turetsky, 1987; Gove & Zeiss, 1987; Baruch & Barnett, 1987). Specifically referring to women recovering from cardiac surgery, Gould and Wilson-Barnett (1985), found that women's recovery from cardiac surgery is influenced by marital status in that "recovery (was)... less good among single cardiac patients who lived alone, while married patients were full of praise for the help and support provided by their partners" (p. 317).

Yet, without these 'ideal' conditions, multiple role expectations can, according to Murdaugh (1986) and Penckofer and Holm (1990), "influence incidence of heart disease and how women fare after surgical intervention" (p. 17). Murdaugh (1986) posits that women engaged in multiple and demanding roles have less time to engage in healthy lifestyle choices such as reaching a balance between exercise and relaxation. Additionally, women under stress from these roles may also engage in higher incidences of smoking and experience higher cholesterol levels. Following that thinking, it can also be postulated that women who experience the depression and anxiety inherent in those who have less satisfying social roles, may incur some of the same risks to their cardiovascular health. However, as current researchers (Allen, 1990; Murdaugh, 1986; Penckofer & Holm, 1990; Solkol et al., 1987; Yates, 1987) indicate, research issues regarding women's social roles and the social context in which their cardiac disease and surgery occur, need to be pursued.

Summary

What women endure from diagnosis of cardiac disease through to recovery from cardiac surgery, though identified as less satisfactory physically and psychologically, has not been studied appropriately or sufficiently to begin to develop an understanding as to how or why this occurs. Some believe that current research studies are limited simply because of the relatively low frequency (compared to men) of women experiencing cardiac disease and surgical intervention (Douglas et al., 1981; Murdaugh & O'Rourke, 1988; Weinblatt et al., 1973). Yet others, from the medical researchers (Ayanian & Epstein, 1991; Khan et al., 1990; Steingart et al., 1991; Tobin et al., 1987) to those in the media (Kovanis, 1992; Points & Rohlfing, 1991; Rubin, 1991; Struzik, 1991; Walker, 1992) believe there is a sex bias in health research which leads to inequality and disadvantage for women who have cardiac disease and subsequent treatment. Whatever the reason, theoretical explanations or hypotheses are lacking, particularly in the realm of psychosocial outcomes.

When writing about physical illness, Moos and Tsu (1977) explain the importance of including the psychosocial perspective. "Psychological and social factors (are) thought to influence not only the etiology and onset of disease, but also the experience, course, and outcome of illness, the response to treatment, the utilization of medical care, including resistance to seeking, and cooperating with treatment, and so on.

Psychological and social factors are now conceptualized as a class of relevant factors in all phases of all diseases" (p. 6). In keeping with this perspective, Christman et al. (1988) note that "recovery is a complex construct and (physical recovery and) activity level is only one of many potential indicators" (p. 81).

As identified earlier, Kimball (1969a, 1969b) purported that the psychosocial experience of cardiac surgery plays a significant role in influencing the physical outcome as well. Langeluddecke, Fulcher, Baird, Hughes, and Tennant (1989) identified that as a result of lack of attention to this aspect of having cardiac surgery, namely psychosocial factors, that "despite favourable physical outcome, impact on psychosocial functioning has often been disappointing" (p. 37). Authors began in the early 1980's (Gundle et al., 1980; King, 1985; Mumford, Schlesinger, & Glass, 1982; Stanton, Jenkins, Savageau, Harken, & Aucoin, 1984) to identify questions regarding psychosocial outcomes of cardiac surgery as legitimate and essential to pursue. "Self-perceptions and emotions contribute more to the general sense of well-being than does the presence of physical symptoms" (Jenkins et al., 1983, p. 786).

Research must therefore focus on the psychosocial needs of women who have cardiac surgery to broaden the understanding of the women's perspective. The quest and call for further research of this nature continues (Allen, 1990; Penckofer & Holm, 1990).

Statement of the Problem

The incidence of cardiac disease and surgical intervention continues to increase in women. However, there is very little clear information or understanding of what makes women's cardiac illness and subsequent surgical intervention unique to women. It is imperative that researchers study this phenomenon from a women's perspective, not only to develop an understanding of this experience, but to enhance the value and effectiveness of health care professional's participation with women who undergo cardiac surgery. The perceptions which women hold about undergoing cardiac surgery must be studied in their rightful context; namely from the perspective of women who have had cardiac surgery. This information could not accurately be learned from what is currently known about men. Thus, the goal of this research endeavour was to study the process that women, and women only, undergo when having cardiac surgery.

CHAPTER 3

Method

Despite having evidence that cardiac disease is a major cause of morbidity and mortality in women and some preliminary research which finds that women have more difficulty during recovery and rehabilitation following cardiac surgery, there has been a paucity of research that focuses on the specific process of having cardiac surgery for women. Deductions about the experience of women who have cardiac surgery have been made either from serendipitous findings or from inferences made about very small cohorts in larger predominantly male studies. The experience of women who have cardiac surgery has not, to date, been investigated in a thorough or systematic manner. To improve the perspective from which health care professionals can practice when caring for women who have cardiac surgery, a question related to the women's experience of cardiac surgery needed to be addressed. Therefore, the research question which guided this study was, 'What is the process of having cardiac surgery like for women?'.

A qualitative approach was used to explore the process which women undergo when having cardiac surgery. Qualitative methods "can be viewed as modes of systematic inquiry concerned with understanding human beings and the nature of their transactions with themselves and with their surroundings" (Benoliel, 1984, p. 3). The inductive nature of qualitative research enabled the researcher to investigate this phenomenon within it's proper emic, and in this case, women's context. "When scientific findings, scientific theory, and even the basic assumptions of academic disciplines are reexamined through the lens of women's perspectives and values, new conclusions can be drawn and new directions forged that have implications for the lives of both men and women" (Belenky et al., 1986, p. 8).

Research Approach

The grounded theory method was used to study women having cardiac surgery. "Grounded theory, unlike phenomenology (for example), assumes the existance of a process" (Field & Morse, 1985, p. 23). The researcher sought to develop a general explanation of this process for women, not solely to describe the qualities of this experience. Grounded theory provided a systematic a pproach to discovering the dynamic social process (Glaser & Strauss, 1967) in which women engage when having cardiac surgery.

When using the grounded theory method, the researcher moves back and forth from inductive to deductive thinking (Corbin, 1986). The theory arose inductively from the interview data and fieldnotes, and deductively through the comparative analysis process. Concepts and constructs which emerged from the data were tested as they emerged. Generated substantive, conceptual categories and their linkages, reflecting the essence of what was said by the informants, were also tested using the data (Chenitz & Swanson, 1986).

Informant Selection

Women who had cardiac surgery at the University of Alberta Hospitals, Edmonton, Alberta, were identified as potential informants. Informants were Caucasian and fluent in the English language. Furthermore, they were able and willing to express themselves about their perceptions of having cardiac surgery. There were ten primary informants who submitted to their first interview within three months of having cardiac surgery. Theoretical sampling was followed as delineated by Glaser and Strauss (1967) and Glaser (1978). The initial informant for this study was a women who had her cardiac surgery, a coronary artery bypass grafting, two months before the first interview. Thereafter, those women who could advance and enhance the development of theory as it emerged, through their experience, were selected.

Jenkins et al. (1983), Stanton, Jenkins, Savageau, and Thurer (1984), and Rankin (1989) state that patients who have had valvular and coronary artery bypass surgery recover similarly. Gortner et al. (1988), Rankin (1990), Stanton, Jenkins, Savageau, Harken, and Aucoin (1984), as well as Tack and Gilliss (1990) used both valvular and coronary artery bypass surgery patients as subjects in studies which focused on improving recovery following cardiac surgery. Therefore, women who had either their first coronary artery bypass graft or valvular surgery were initially asked to participate in this study. Women who were younger having had surgery for congenital anomalies were then sought as informants, as it seemed prudent to also interview women from a variety of age groups.

It was also identified as important to select informants who had a variety of experiences, for example: those who had an extended waiting period, who had surgery as an emergency, who had an extended Intensive Care Unit (ICU) stay due to post-operative complications, as well as those who were in a variety of living conditions. Thus, theoretical sampling lead to the inclusion of informants who had a wide variety of experiences and characteristics.

However, due to practical and administrative reasons (indeterminable amount of time before surgery was actually booked, volume of necessary activites for the women immediately before surgery, and hospital administration wishing that patients not be approached in hospital for interviews), data collection across the time frame of having cardiac surgery was not possible or practical. Therefore, much of the data was retrospective. Sampling continued until the categories identified through data analysis were saturated and no new information was being identified (Chenitz & Swanson, 1986).

Data Collection

Initially, the Cardiac Teaching Nurse at this major referral centre for cardiac surgery, approached potential informants two days before discharge requesting permission to be seen by the researcher (Appendix A). If the potential informant was willing to participate, her name was forwarded to the researcher by telephone. The researcher then met with the woman, while still in hospital, to further explain the study and seek consent (Appendix B) to participate. Two informants were recruited in this manner. However, this process of recruitment did not prove successful for a number of reasons. The Cardiac Teaching Nurse's position was so demanding that including these extra steps into her day proved very difficult. In fact some potential informants were lost by strictly adhering to this process. Furthermore, though three women initially consented to the interviews when approached by the Cardiac Teaching Nurse and then by the researcher while in hospital, they recanted once home citing a lack of physical and emotional progress as reasons for not wanting to be interviewed.

It was then agreed that the researcher would approach the women for potential inclusion in this study, by phone and at a later, and perhaps, a more appropriate time. Following introduction by the Cardiac Teaching Nurse during a routine post-discharge follow up, the researcher called potential informants, to seek their admittance to the study. This method proved much more successful, as no one approached in this manner declined to be in the study.

An initial home visit was arranged by phone at a minimum of four weeks post-discharge, and for most at six to eight weeks post-discharge. "Patients and caregivers deal with many recovery-related problems during the early weeks after cardiac surgery" (Tack & Gilliss, 1990, p. 497). King and Parrinello (1988), as well as Tack and Gilliss (1990) identify the four week period post-discharge following cardiac surgery as a multifaceted and critical time of recovery. Gilliss (1984) found that patients following coronary artery bypass surgery found the six week post operative time a milestone. Thus, interviewing the informants at home and several weeks post-discharge, allowed them time for adjustment and recovery at home. Furthermore, it was hoped that following that adjustment and recovery at home, the women could reflect back on their entire surgery experience while also being able to discuss their experience of recovery at home.

The major means of data collection was formal unstructured interviews with women who had cardiac surgery. These interviews were conducted by the researcher in the informant's home. To initiate the interview, the purpose of the study, namely to learn what it is like for women who have had cardiac surgery, and the rights of the informant as a participant in the study, as outlined in the informed consent, were reviewed. The women began descriptions of their experience with identification of their illness and need for surgery, and continued through to their present state. Each woman was interviewed at least twice; once at approximately four to eight weeks post-discharge and again at two to nine months following the first interview.

The majority of interviews were tape recorded and later transcribed. Due to researcher error in using the tape recorder, one initial interview was not taped. Also, two other informants, at the initial interviews, requested that the recorder be turned off at some point during the interview, as they were embarrassed about crying while with the researcher. Some informants at further interviews, requested that due to the personal nature of the interview content and their lack of comfort with being tape recorded, that the recorder be off. Particularly in those cases, in depth and accurate fieldnotes were kept and used as data.

The descriptions of the process began with the onset of the need for surgery, entry into the hospital, and continued through the recovery period. Initially the interviews were guided by a topical outline with some structure upon which the researcher could pursue the encounter. Some suggested questions included: a) Can you tell me about when you first learned you were having surgery?, b) What do you remember during your hospitalization?, c) What do you remember about coming home?, d) What do you remember about being at home for the first few weeks?, e) What can you tell me about your experience of cardiac surgery?, f) What has having cardiac surgery been like for you?, g) What would you really like me to know about your recovery experience from cardiac surgery? These guiding questions were used and tailored to help the informant articulate her experience to the researcher.

Substantive codes initially generated reflecting the substance of what the informant said were shared with informants in successive interviews and used to formulate questions to assist in validating those categories with further informants. Demographic data (Appendix C) were collected to assist in theoretical sampling. Further interviews were guided by the emerging concepts, constructs, and categories to further develop and validate the theory. In all, twenty-one interviews were conducted. Utilizing this process lead to saturation where no new information was being identified and theory had been taken back to informants for validation.

Data Analysis

The constant comparative method of data analysis was performed (Glaser & Strauss, 1967). The researcher began by reading transcriptions of the interviews and making written memos beside statements made by the women. Memos were written about emerging ideas or incidences that described aspects of having cardiac surgery. Eventually, similar statements were identified in the various transcripts and identified as such. The statements were identified in the most parsimonious form that retained contextual meaning. At that time, the Ethnograph^{TM} computer program was utilized to sort these labelled statements. Statements from transcribed interviews remained emic in that the actual words of the informants were not altered or interpreted. This began the process of coding the transcripts line by line.

In the next phase, the emic statements were grouped according to observed similarities. Each group was labelled with a category name, and the rules for inclusion in that category were identified and specified (Appendix D). For example, those statements that reflected integration or fitting the changes, particularly physical changes, associated with having cardiac surgery into one's life, were considered as 'normalizing' statements. While coding an incident for a category, it was compared with the previous incidents in the same and different categories. During this process, further memos about potential linkages of these categories were made to provide some ideas about the emerging theory.

This process was long and arduous. Further to having the researcher code each transcript line by line with the identified coding scheme, the thesis supervisor and an external reviewer (another Master of Nursing Candidate) did the same to ensure that the coding scheme was accurate and well articulated.

As the categories and their properties became integrated, the researcher was able to develop some linkages between these categories. The theory began to be developed. At this time, the existing literature was used as data, to compare with the emerging categories and to aid in explanation of the emerging theory.

The process of delimiting the theory and reduction of categories then occurred. During this phase, categories were further reduced. The questions posed about relationships or linkages (as forced by constant comparisons) also helped to identify a core category or variable around which the theory came together and further delimited the theory. The core category is what Glaser (1978) describes as the main theme which "sums up in a pattern of behaviour the substance of what is going on in the data" (p. 94).

Finally, memos about the categories, the coded data, and the theory generated were used to formulate an accurate statement about the process. This formulation was enhanced by further trimming, consolidating, and forming diagrams which aided in description of the theory. The theory was further validated by taking it back to informants for their input.

Reliability and Validity

Sandelowski (1986) identifies that "criticisms of qualitative research are largely concerned with its scientific adequacy" (p. 27); namely achieving reliability and validity. Several methods were used to establish reliability and validity in this research endeavour.

Validity, or gaining the true essence and meaning of the phenomenon under study, was established by conducting multiple interviews, verification of data by informants, theoretical sampling, and ensuring data accuracy. Selection of informants rendered a group who were theoretically representative of the culture of women having cardiac surgery. Theoretical sampling ensured selection of informants who could best describe the nature of the process of having cardiac surgery.

Informants were interviewed about the same topic, namely having cardiac surgery, more than once and over a period of time. The researcher was interested in the reality of each informant's experience as they personally told their story. The informants disclosed their thoughts and feelings over this time, particularly in subsequent interviews and with reassurance of their anonymity. Also, to avoid the error of 'acquiescent response set' the open questions allowed for the informant to express themselves and provide insight into their experience, thereby hindering yes/no responses. Through working closely with the thesis supervisor in developing appropriate interview techniques, the researcher enabled informants to comfortably and competently tell their story without direction or bias of the researcher.

Data accuracy was further assured by the researcher doing the transcription and checking the transcripts for accuracy. Data coding and analysis were done with the help of the thesis supervisor and with verification of a third reviewer. The thesis supervisor coded the emic statements from approximately two thirds of the transcripts chosen at random to ensure no discrepancies. Also, the grouping of emic statements into categories using the inclusion criteria, required agreement between the researcher, thesis supervisor, and the third reviewer; thus providing some consensual validity. The resulting grounded theory was then considered representative of the sample of women having cardiac surgery.

Reliability, or stability and consistency of results, was established by accurate documentation of the details and method of the research process, objective recording of fieldnotes, taping of interviews, validation of data with informants, agreement with coding and categorization of data with my thesis supervisor, and use of the constant comparative method of data collection and analysis. Brink (1991) identifies stability over time, internal consistency, and equivalence as indicators of reliability in qualitative research. Stability over time is demonstrated by "asking informants identical questions of the same content to establish consistency of the answers" (p. 176). The initial questions identified in the previous section, provided a basis for discussion with all informants. Information was brought back to each informant at the time of the second interviews for clarification. Second interviews often included many of the same 'stories' being repeated by the informants with further embellishment and explanation as solicited by the researcher.

Internal consistency of the interviews was established and judged by the researcher and thesis supervisor when reviewing transcripts and tapes. The 'stories' told by the informants did not vary within the context of the interviews. The content of the 'story' did not change throughout the interview. Using example questions, jointly reviewing the data, returning to the same subject repeatedly to verify the analysis of the data, and clarifying the emerging theory with the subjects, aided in establishing both reliability and validity.

The error of investigator bias can be a threat to the reliability and validity of a qualitative study. Munhall (1989) identifies the researcher as the "primary instrument in qualitative designs" (p.175). Both the researcher and thesis supervisor were cognisant of personal feelings and ideas that could be brought to the research process. As best possible, these biases were bracketed while data gathering and analysis were being undertaken. Both were then aware of these potential biases when reviewing interview and fieldnote tapes. The introduction of a third reviewer also helped diminish the threat of bias.

Ethical Considerations

Ethical clearance was obtained from the Ethics Review Committee, Faculty of Nursing, University of Alberta and the Special Services and Research Committee, University of Alberta Hospitals. Strategies to recognize and ensure confidentiality and the rights of the informants who agreed to participate in this study were undertaken. The informants were advised regarding the purpose, participation required, strategies for confidentiality, benefits, and any foreseeable risks to participating in the study, prior to final agreement to the interview process. The informants were asked to sign an informed consent (Appendix B) before commencing the interview. Each informant received a copy of the consent.

Confidentiality of the informants was ensured by removal of names and other identifying information (such as physician's name, family member names, etc.) from tape labels, written transcripts, and fieldnotes. A code number was assigned to each informant at the onset to ensure proper labelling of data materials. The linkage between the code number and informant was known only to the researcher. Tapes, transcriptions, and notes were kept in a private filing cabinet system. The code sheets with corresponding names, addresses, and telephone numbers were kept in a separate storage area. Tapes will be kept for later use subject to appropriate ethical review.

The researcher also made the informant aware at the onset of an interview that she was free to terminate the interview at any point should she become uncomfortable with the discussion. In fact no one chose to terminate the interview, but some did request that the interview not be taped. They were reminded that fieldnotes and further data from the untaped interview would still be used for study purposes. The researcher was also prepared to make referrals to appropriate professional health or social services if any concerns arose through the interviews. This in fact was not necessary.

Chapter 4

Findings

The categories, their linkages, and the resultant grounded theory, explain the common elements of having cardiac surgery as experienced by the women in this study. Understanding the individual nature of each women's journey through the process of having cardiac surgery is enhanced by the identification of the core variable in this process.

First, demographic data and information about the informant's surgery will be presented. Second, the categories identified through the constant comparative method of qualitative research will be identified and discussed. The linkages and relationships between these categories will then be brought to light in these discussions. The summative discussion will reveal the essence of the emergent grounded theory, the core variable.

Informants of the Study

There were ten informants included in this study. They have been given pseudonyms and will be referred to by these assigned names to protect their identities.

Anne is fifty-one years old. She has worked full time professionally. She is single, has no children, and lives alone in an apartment. Her family live out of the province. She has several years of post secondary education, having earned more than one undergraduate degree and done some post graduate work. She has generally been physically healthy in the past, yet has had some psychiatric problems for which she continues to be treated. She has known that she had some cardiac related illness for approximately four years. She waited to have quadruple coronary artery bypass surgery for approximately 10 months. She had an extended stay in ICU due to complications related to her surgery. However the rest of her hospitalization progressed as expected. She returned to work after five months, but after only three weeks has been unable to continue and is on a long term disability pension.

Betty is 30 years old. She works full time professionally. She is married, has one child, and lives with her spouse and child in a single family dwelling. She has a strong family and social network here, though most of her family live out of province. She has earned a diploma from a technical institute and continues to take courses. She has generally been very healthy in the past and was unaware that she had any cardiac problems. She was admitted to hospital following an acute episode at home, was diagnosed as having a congenital anomaly, and had surgery immediately. She didn't have any immediate serious complications following the surgery, though there are some problematic residual effects. She was back to work in four months time.

Carol is 21 years old. She works full time. She is single and lives with her parents. She has a strong family and social network. She has earned a diploma from a technical institute. She was unaware that there were any cardiac problems until a routine physical when she was a teenager. She waited approximately two years to receive her surgery for a congenital anomaly. She had no serious complications from the surgery and returned to work in four months time.

Darlene is 47 years old. She has been a homemaker for a number of years and has worked outside the home in unskilled jobs from time to time. She has some highschool education. She lives with her husband and has one married child who lives in the city. She has a very strong extended family network. She was diagnosed as having rheumatic heart disease as an adult. She had a mitral valve replacement several years ago and needed to have another replacement. She waited for her surgery for more than one year. Her hospital stay was extended due to bouts of atrial fibrillation and some respiratory complications. Her recovery was progressing well until another unrelated health problem arose.

Edith is 62 years old. She has been a homemaker on a farm. She has some junior highschool education. She and her husband have raised a large family. She has a large extended family and social network in her rural community. She was diagnosed as having cardiac related illness and requiring triple coronary artery bypass surgery approximately nine months before her surgery was done. She had no in hospital complications and has recovered well at home.

Fran is 42 years old. She is a homemaker. She has four children (three who are still at home) and is married. They live in a single family dwelling. She has some high school education and virtually no employment experience outside the home. She has a very large and supportive family network. She had triple coronary artery bypass surgery following a recent diagnoses of triple vessel disease and a failed angioplasty. She had no postoperative complications.

Grace is 56 years old. She is the only subject who is not of 'Canadian' origin. She has been employed full time for the past ten years as an unskilled labourer. She has been employed most of her life. She is divorced and has two married children who live in a nearby community. She has a strong relationship with the children and a few close friends. She has a junior high school level of education. She was hospitalized with an acute onset of angina, had a failed angioplasty, and required double coronary artery bypass graft surgery. Her hospital stay was extended due to persistent and severe chest wall pain.

She has been unable to return to work, though has been told she should by her physician, and is on long term disability.

Helen is 76 years old. She is single, has no children, and lives in a seniors residence. She has been retired for many years following a long professional career. She had been aware that she had cardiac related illness for approximately eight years. However, she had become increasingly symptomatic over the last year, requiring numerous hospitalizations. She was scheduled for surgery at the time of one of these hospitalizations. Her intensive care unit stay was extended slightly, but her recovery was otherwise uneventful in hospital. However, she has developed circulatory problems in her right leg due to intra-aortic balloon pump assistance which will require further surgical intervention.

Irene is 79 years old. She is widowed, has two children (one who lives in the same community with her family), and lives in a condominium complex. She has a very strong family and social network. She worked outside the home and with her husband most of their working years. She has some high school education. She considered herself very healthy up until the time of surgery. She had a sudden onset of angina at home, was hospitalized and had triple coronary artery bypass surgery within a few days. She was very ill preoperatively, but had no complications following the surgery.

Jane is 79 years old. She is widowed, has two children (one who lives in the same community with her family), and lives in a single family dwelling. She has a helpful family and a very strong social network. Though working in an office, she earned a diploma at age 49, when her husband became chronically ill. She worked in her professional career until retirement at age 65 years. She had been aware that she had cardiac disease for a few years and was followed on a regular basis by a cardiologist. Her health had been deteriorating over the past year with frequent hospitalization for angina. She was referred for surgery during one of these hospitalizations. She had triple coronary artery bypass surgery without complication.

A summary of demographic data gathered from the informants is located in Table 1.

Categories

The women in this study found that there were several phases to having cardiac surgery. They have been labelled waiting, getting there, surviving, being there, and moving on. How the women moved through these phases depended on a number of factors. These included relating with others, be they family, friends, the hospital system, or God; managing the experience through the perception of being under or out of control; fitting the changes associated

Table 1

Summary of Demographic Data

		Characteristics		
Informant	Age	Marital Status*	Type of Surgery**	Employment Status Before/After***
1	51	S	CABG	P/D
2	30	M	CAR	P/P
3	21	S	CAR	P/P
4	47	M	MVR	H/H
5	62	M	CABG	H/H
6	42	M	CABG	H/H
7	56	D	CABG	P/D
8	76	S	CABG	R/R
9	79	W	CABG	R/R
10	79	W	CABG	R/R

*S-Single, M-Married, D-Divorced, W-Widowed
**CABG-Coronary Artery Bypass Grafts, CAR-Congenital Anomaly Repair, MVR-Mitral Valve Replacement
***P-Paid Employment, H-Homemaker, D-Disability Pension, R-Retired

with having cardiac surgery into their lives, or normalizing; and making sense or developing a perspective about this experience. The core variable, the process which accounts for most of the variation in the grounded theory (Glaser, 1978), enhances the understanding of the individual woman's experience of having cardiac surgery. The core variable which arose in this study was the process of 'preserving the self'.

Phases

The women in this study found that the process of having cardiac surgery evolved over five phases: waiting, getting there, surviving, being there, and moving on. Movement through these phases was determined not only by the physical symptoms of cardiac disease or recovery from surgery, but also by a variety of psychosocial variables described later in the findings.

Waiting. For many women in this study, there was a period of time following diagnosis when the need for surgery was understood and acknowledged and they were awaiting hospitalization. This has been labled 'waiting'. The average waiting period for those considered as elective or non-emergent cases was eleven months. One woman waited two years. Although some informants for this study had emergent surgery, the impact of this phase, particularly on those who's waiting period was prolonged, was formidable.

Waiting was like being in suspended animation; when no planning of one's life could occur. Darlene expressed that waiting was like:

> "I didn't know what was coming or when, then just waiting and waiting and never knowing from one week to the next. And on top of that it's hard to live when you can't plan. I mean nobody really thinks about it until you can't. But we all plan. You write on your calendar what you're going to do next week or two weeks from now... I just hated it." (Darlene)

There was a clear problem with getting on with life, which could not be done until the obstacle of having surgery was hurtled. For many women, having the surgery or getting it over with, was the only focus. Plans were made for going into hospital, but notably absent were concerns or plans for the time following surgery and recovery at home.

> "You don't really think of the pain that you're going to feel afterwards. You just think 'Oh well, I'll get this over with'." (Carol)

Many had symptoms of illness that worsened over time or progressively concerned them.

> "But I had been putting up with being down so long, that I thought that it can't be any worse. And if I don't have this surgery, I'm not going to be able to exist. That's all. I'm not going to be able to exist day after day because this is not... I'm not progressing favourably. In fact I'm going down hill, so to speak." (Jane)

Frustration, fear, and uncertainty of not getting the surgery in time were hallmark emotions during this phase.

> "Because you don't know where you go from one day to the next. And like it does something to you mentally. And I don't care, that's the, in a way it has to put your defences down too. Because you get so tired of just fighting never knowing... that really played on my mind." (Darlene)

Getting There. The phase 'getting there' began when the women entered hospital and were actually getting ready to have their surgery. The women in this study could see that the surgery was imminent and that their wait would be over soon. There was often some easing of frustration at this time as this was seen as the 'beginning of the end' or the start of 'getting it over with'. Jane expressed it like this:

> "On Tuesday morning around tenish, the doctor came in to talk to me and he said, 'I'm Dr. (Surgeon)... you're going to have surgery this afternoon at two o'clock'. I said, 'And you're going to be my surgeon?'. And he said, 'Yes'. And then I was tongue tied. I didn't know what else to say. I did not ask him questions. I'm going to have it. I'm going to have it. Goody. Goody. So I was very glad." (Jane)

Carol added:

> "... it wasn't as bad as I thought. I wasn't nervous or anything like that. I was just kind of glad that it would be over and done with after all the waiting." (Carol)

Although still frightened of the imminent surgery, those who waited an extended period of time were usually more relieved that they were finally going to have their surgery. Others, those who had shorter periods of waiting or emergent surgery generally expressed more anxiety and fear of this approaching experience.

> "... but the night before the operation, I was just terrified out of my skull." (Anne)

Grace, after facing an emergent procedure stated:

> "... they said I need surgery. So went to surgery. But the way I was, I was hoping to survive, but I didn't (think) I would." (Grace)

This phase persisted until the women went for surgery. It was described as a very active time of tests, teaching, tours of the nursing units; what had to be done to get ready. Some, who were emergency cases, were very ill and focused only on the physical aspects of living through this phase.

Surviving. 'Surviving' was a period of time which began as lost to the surgery, and ended when the women began to waken and become oriented following surgery. At that time, the realization occurred that they were alive; they had lived through it. There was relief that the surgery, was over.

> "So then when you wake up, yes it's nice. I mean, so you hurt, so it doesn't really matter cause I mean, you know. Hey, I mean it's over and I'm awake!... and like I said, I was relieved to wake up..." (Darlene)

This phase was often described in terms of disorientation and reorientation (fading in and out) with time and place as 'markers'. Edith expressed her experience like this:

> "I remember nothing until about twenty after eight on Wednesday morning. I woke up and I kept thinking I must have died because I didn't know where I was. I didn't know what happened to me or what. I said I must have died. And then on the wall there's these big clocks they have in the hospital. Well they don't have clocks like that in heaven, so I must be alive." (Edith)

This phase varied in duration mainly due to postoperative illness and complications. The older women, for the most part, tended to encounter an extended period of disorientation. However, the woman who had the most postoperative illness and complications, and who had the most prolonged period of disorientation was in her fifties.

There were often hallucinations which accompanied this period of disorientation which these women remembered in very vivid detail. This haze usually ended with a few definable events which they recalled as having 'brought them back to reality'.

> "So I would say the third day. And they moved my bed, as I know now, into another ward where there was another person. But I then wasn't out of that hallucination... I said 'I'm not in the right hospital, I shouldn't be here!'. And someone called out, 'Mrs. (Jones) your grandson's here'. I said, 'He can't be here, this is wrong, I should be in the... Hospital'. They all laughed (and said), 'You're in the... Hospital!'. And then my grandson put his arms around me. 'You are here nanny, believe me, it's me. I've been sitting here for three lunch times listening to you all jabbering away about nothing'... So that was the moment that I knew I was alive, which was a very nice feeling especially since... I believed it because it was my grandson." (Irene)

Being There. 'Being there' was the phase when the work of getting better began and ended. There was an element of being in a 'survival mode' when the major concern was to continue to live and get better.

> "I'm not going to take a chance on goofing this up. I went through this much of it now, I really want to get better... But like it really takes alot to get feeling better. It really knocks you down, like it really plays you out... the majority of my attention span and stuff is that just concentrating on getting better. Like getting from one day to the next." (Darlene)

The realization occurred at this time that there was pain, worry about what happened (and what would happen), and an awareness that there was a process of working toward getting better. This was an exhausting time physically (weak, tired, feeling pain), emotionally (need to reflect and evaluate the worry, humiliation), and cognitively (need to recapture cognitive abilities impaired by surgery).

> "I think that when you come home, at first you, you have lost all your, your glue. You know, you're very fragile... You've lost your glue, yah, so you're very fragile. And it takes time, I think to put the glue back in, you know. Um, once that happens, then you're OK...Um, you've been torn one way and the other physically, mentally, emotionally, you know. I think that's what happens to alot of people when they get very sick either physically or mentally; the glue doesn't hold." (Anne)

This was the time when planning for and participating in recovery occurred, lasting through hospitalization and the recovery time at home.

Moving On. 'Moving on' occurred when the women were able to carry on with their lives apart from having had surgery. Having had the surgery could be put in the past.

> "Moving on means that you don't have the handicap of having surgery any more." (Fran)

The women were no longer living the surgical experience. This phase occurred some time after returning home. The physical, emotional and cognitive aspects of having cardiac surgery had been stabilized. Plans for the future were being made.

> "You maybe have more energy to put something into effect... I guess I do have kind of alot of, sort of, psychic energy that you could see that there's a bit of hope down the road." (Anne)

For some, there was a feeling of reassurance that what was once wrong was now fixed.

> "I'm safe now. There is really nothing to fear." (Carol)

Some also planned changes in their lives or life styles to improve their perception of the future.

> "... anything I can do to keep it (my heart) in rhythm, I'm going to do." (Darlene)

> "... from now on I'm gonna do more things for myself than I did till now. Uh, for fun, enjoy it much more. Before, I was very, work was my number one; always trying to be the best. And uh, now I don't care any more." (Grace)

Some felt there was an element of hope in their future.

> "I guess I see the surgery as 'Ok we fixed you up now go and play'." (Anne)

> "(my future) looks better now. It looks much better." (Carol)

Some planned to work toward paying back the health care system for their good fortune; volunteer work for other cardiac patients. Others, particularly those who did not clearly benefit from having surgery tried to forget.

> "I'm trying to forget it... You know, not to think back about that pain. And uh, before, right away it was in my mind. But I'm doing good. I'm putting it out." (Grace)

Relating

How the women experienced movement through the phases of having cardiac surgery, depended on a number of factors. One of these factors was 'relating'; how they were able to relate to themselves and others while having cardiac surgery. Relating involved needing and protecting others.

Needing. The relationships women held with others could include those with family, friends, the hospital system, or God. If there was an assessment of trust in these relationships, others were needed and there was a sharing with them; sharing of feelings, responsibility, or decision making. The women would see the need for someone just to be there, for security, to trust, comfort or 'to do for' them.

> "I think it was to know that, just to know that family came in and they were there to hold your hand and say it's going to be alright, you did fine, your surgery went well. And I, yah, it was quite interesting when they came in. It's more like a big relief, you're glad they're there." (Carol)

> "Yah, because otherwise I really don't believe them. To be quite truthful, I really don't. Like they say hey it's over, you're fine, you're back here, you're recovering in ICU. But I mean, they can lie to me. I mean, I can't see, I don't know them. And once he (husband) tells me, then I believe him." (Darlene)

> "And then uh, my son came in and my daughter-in-law. That time, I was already talking. And uh, he says how are you? And I looked at them, and uh, he put his, I know I was trying to reach to turn my hand there and they see it and they hold my hand. Which was very comfortable and then after they were standing by my bed there, and I am never going to forget that, the comfort that he give to me and he didn't know he was giving the comfort to me. That uh, really can you know, and he put his hand here on my front on my shoulder, and he was going with one of his finger, like that... Just rubbing my shoulder with one of the finger so gently, you now. And the comfort that I felt with that, you know, he was going there for quite a while... So that healed me." (Grace)

Other trusted people could be assigned a 'watch dog' role or be someone to relinquish control to and to watch over.

> "As long as he's (husband) there, I figure I can't die, right? It's really silly, it's true, I do. As long as he's there I know he's going to make them do it right? He's going to make them suck it out whether they think they have to or not because he's standing there and he's going to... now he isn't nasty, he's very polite, but do it." (Darlene)

There was, occasionally, a positive change in the perception of these relationships particularly if this support was unexpected.

> "... (another) thing that came to me was how lucky I was that all these people, kind of from work and friends were coming to kind of look after me. They were fabulous. They came and visited. They, they, I, it was a real, uh, it was so, so good, uh, you know. And I thought my God, you know. It, it was even more important, uh, more unexpected I think. That's the word. And you know I kept telling the social worker types that came around after, that I may be single, I may not have family here, but I've got this marvellous extended family here." (Anne)

If a successful establishment and maintenance of relationships with those other than the 'chosen few' did not occur, distrust ensued. This often lead to the women feeling a sense of vulnerability to others which was manifested by them having a fear of harm from others, judgements made by others, or being a burden to others. This was often, but not necessarily, related to physical progress or to role performance.

> "Because I don't want to feel; I don't want people doing things for me, you know. If it's my daughter, it's OK. But (not) the... nurse or somebody you don't know. Because you feel as though they feel; I think maybe they're going to think I'm lazy and I don't want to get up and do it. 'Cause they don't know me at home, you know." (Fran)

> "The biggest thing is the fact that I feel like an idiot sitting in my chair watching somebody else

> vacuum and dust and wash my dishes, make meals and feed me, because you can't do it to start with. There's no way. You think you feel good, but you're incapable of doing anything. Now if you felt good enough to go shopping or some place where somebody could do it and not be seen by you, it wouldn't be so bad. Which is true, you wouldn't. But to sit and watch somebody else do it for you all the time, it bothers me." (Darlene)

This woman goes on to say:

> "But the catch is you look healthy, you look fine. And then people always see everybody else doing things for you and it's really dumb to worry about what other people think but to a point you do. Because like, everybody will say 'Gee you must be feeling great, you look great'. Well good, and I can't walk a block. I mean so you don't bother saying nothing. I mean if it's not immediate family you just sort of shrug your shoulders and say forget it. I mean you aren't going to understand anyhow." (Darlene)

Protecting. When relating to others, the women also wanted to protect those loved or cared for. They wanted to protect these people from the threat of the negative aspects of the surgery. For example, they wanted to protect them from worry or imposition.

> "I guess it's that, that they've got their own things to do, their own responsibilities..." (Anne)

On occasion, there was an expression of guilt or worry about what the impact of having the surgery would do or had done to others.

> "I'll tell you what did go through my mind, is what if nobody knew how to cook for (son). That scared me. Because I didn't want his sugar going up." (Fran)

While others were to be praised for their strength.

> "... my dad took it the hardest. He woke up that morning, and he was quite, he knew I was going for surgery that morning, and he, and I don't, he

> couldn't really calm down because he knew he was scared. He couldn't visit me until two days after surgery. And when he did come, he broke down into tears, to see me with all these tubes everywhere, I had a tube down my throat, in my arms, everywhere. And then mom said she couldn't sleep the night before. So it took a toll on them too." (Carol)

Some women also tried to protect themselves from the negative aspects of having surgery. In the earlier phases, some of the women engaged in denial, when they ignored symptoms of their illness as a means of not having to face that their illness was progressing. For others, this was a more purposeful process such as choosing not to do or think about physically harmful or emotionally hurtful things. Betty recalled that while in hospital for surgery, she had to forget that she was a mother. She said that when thinking about her own mortality, contemplating that her child could be without her and grow up without her was just too painful, so she chose not to think of her motherhood. Grace tried to save herself from the realization of having her body changed.

> "She (the nurse) says everybody wants to see (their incisions). I say I didn't. I can't handle it, not to see, you know." (Grace)

For Darlene, at times, it was not a matter of saving others, but of 'saving herself' from others. She was determined to use what ever energy she had on concentrating on getting better.

> "You don't need people, you know, nieces and nephews, whatever, roaming in and out of ICU to visit you. I mean you're not up to it. Which alot of people really don't understand." (Darlene)

Managing

Another factor in how the women progressed through the phases of having cardiac surgery was management of this experience. The perceptions that the women held about relationships influenced how this experience was managed; leading to a feeling of having a situation 'under control' or 'out of control'. Managing thus involved relinquishing control, attaining/regaining control, losing control, and floundering for control.

Relinquishing Control. Darlene, when talking about her family, her 'chosen few' visiting, put it like this:

> "I like somebody there. The idea of somebody there. Sure the nurses are there, you can press your bell and they're there. But like, I like the fact that somebody spends a certain amount of that day with me. Just so I know they're there. I don't have to worry about things. Like, they're in control, I'm not." (Darlene)

When relinquishing control, control was either shared with or temporarily given to another trusted individual or system. There was an inherent confidence in these others (be they family, doctor, nurse, God) that was displayed through a sharing of information, knowledge, and feelings or through asking for help or service. 'We' statements occur more in these times. Carol relinquished control to God and when talking about her confidence she stated:

> "I think it came from God. I was, we were praying alot, and we had alot of people that were supporting me and I just knew if this was God's will and He wanted me to go through with it, then I will. And so, and I knew that He would take care of me... So that's one of the reasons why I went through with it. I know

> that God has determined my life and how long it should go. So I knew that everything would be alright." (Carol)

Darlene relinquished control to her husband.

> "Yah, it's almost like I can concentrate on getting better because I don't have to worry about what's happening, what's going on... Then I have my husband to control it." (Darlene)

Fran relinquished control to her physician.

> "He is the nicest guy, he really is. He came to visit me three times in the hospital. He didn't do the surgery, but he referred me over there. I, you'd just love him, he's so little... He's really a nice guy. But he sort of takes the fear away. Because when you get somebody that really knows what they're doing, they sort of make you feel that (things are Ok)." (Fran)

Attaining/Regaining Control. When the women regained control, they took back that which was given or perceived as taken away; control over themselves. In earlier phases, this process involved control over their own bodies. Darlene expressed her post-extubation experience like this:

> "Like next, once they took the tube out, as soon as they gave me a drink, we know what's going to happen. I'm going to be sick. And yet, I always want that drink faster than anybody else because let's be sick and get it over with and then I'm going to feel fine. So, yah, it hurts to throw up. It does. I mean you're all stitched up and it's, you know, within twenty-four hours of surgery. But, at least I'm in control. I can, I can open my mouth and I can throw up in something. I mean I've got the basin. I'm going to be sick and I did." (Darlene)

Grace, who was experiencing extraordinary difficulty with chest wall pain following surgery explained how she was able to regain some control despite this serious problem:

> "I inject morphine (in) myself... And so after that, when they put that on me, it was better. You know, I mean, better. I didn't have to call anybody. Then before it (pain) comes, I just press the button and was there right away." (Grace)

Some women, as a means of regaining control, began to question what had been simply accepted as beyond control at earlier phases.

> "And at one point the surgeon and I nearly threw bed pans at each other because I dared, because what started it was, I said, 'Why do I have to take this pill?'. And he got rather angry and said, 'Don't try to out doctor the doctor.' And I said, 'I'm not trying to do that, I simply want to know why. I have that right.'" (Anne)

In later phases, regaining control demonstrated that there was increasing self confidence physically, cognitively, and emotionally. The women were able to identify that more could be done to help themselves physically, with decision making, and critical thinking. They were able to do things that others were doing for them.

> "I guess what happens is you become more and more convinced that your heart is working, that you're going to be Ok, that you're not going to, that you're not so fragile anymore, that you are becoming stronger and that you can kind of hold your own." (Anne)

> "And one of these fine days I should have my driving rights back. I figure six weeks, we'll ask Dr. (Surgeon). I mean, to be actually quite truthful, I won't do it for another week anyhow cause, my right arm, the muscles in my right arm still feel funny. So I ain't gonna drive until I think I'm ready." (Darlene)

Losing Control. When losing control, the women perceived others as being in or having taken away control.

> "... like it's having, well you lose control, you have no control. It's like have you ever been in a vehicle and hit ice, I mean, and lost control and end up in the ditch? I mean it's about the same feeling. Like you're just there and there's nothing you can do, like you've got no control. It's whatever is going to happen." (Darlene)

This was particularity so when they talked about control over their own bodies.

> "... at the time, it was just all these horrible and humiliating things that were happening to me and I certainly didn't like it, you know... you do lose control, you see." (Anne)

> "... when I wake up with that tube in my throat. OK, I know better than to try and take it out, but it just, not only does it prevent me from talking, that's not the biggest one, but it prevents me from breathing. Like I can't, I really figure I'm choking to death on it. Like I can't breath. So of course, it's not nice. I mean I realize these girls, nurses, have went to school, they've had training, and they're saying to my husband, 'She's not choking on it she just thinks she is'. How would they really know? Did they ever have that thing down their throat? I mean they don't know that I'm not really choking... you've got to depend on somebody else to suck that out so you don't choke. It's an awful, you feel really, I feel really, I feel really, when people say about being paraplegic or quadraplegics, you really know how they must feel. Because you've got to depend on somebody else. Like you can't (even) spit." (Darlene)

The feeling of vulnerability lead to feelings that the situation was beyond control physically, emotionally, or cognitively.

> "... things got worse and worse and worse and I didn't know what was happening." (Anne)

> "... it leaves you feeling... really useless, right?... Like I really don't like to feel that useless. I'm quite capable of being lazy, that isn't the point. If I'm lazy because I want to be, not because I'm forced to be. Like if it's my choice, and it's not your choice." (Darlene)

> "... but you hate feeling useless. And feeling useless is terrible cause you know, you raise your family and you do everything on your own, and then all of a sudden, you can't do nothing. And I hate that; I hate feeling like that." (Fran)

Either way, control was not voluntarily given away. It is perceived as taken away or impossible to manage, thus leaving them feeling helpless, useless, and exposed. In one case there were other, very practical reasons related to the woman's ability to support herself, which lead her to feel this way.

> "When I first got sick, there was no sick policy what so ever; no sick benefits. We had fifteen days sick leave and that was it. I had to go on unemployment. I had never been on unemployment in my life. This was a terrible thing for me. This was a disgrace. I had worked every single day that I was capable of, you know. Um, so here I was on unemployment... I was devastated in terms of money. I mean it was very, very frightening you know. So I was very angry about that, that there, you know, could they not see what terrible financial pain I was in, what terrible, every other sort of pain..." (Anne)

'They' statements occur more in these times. There was often a lack of confidence, information, trust or simply the perception of lack of choice. Helen and Jane found that there was a lack of agreement on the part of their physicians as to whether they should be referred for surgery. Helen and Jane were lead to feel that their situations were beyond their control.

> "So uh, I felt that maybe it was a matter of age and diabetes. They kept telling me the diabetes, and the diabetic specialist said the diabetes wouldn't make much difference. So uh, I felt that they'd written me off." (Helen)

Floundering for Control. When sensing a loss of control, some women entered a process of floundering for control. They were trying not to lose control and were struggling awkwardly and helplessly to attain a sense of having control. They were often clearly and simply afraid and wanted to take action. This bid at attaining control, was often attempted in a sporadic and inappropriate manner and often occurred without regard for personal risk.

> "And I remember saying to the nurse at one point, 'If I don't get this (enema) what happens to me?'. She said 'Well you won't get the operation.' And I tell you, I really, really thought during that night that I would just walk out of that place. I, I was, I really thought that I would." (Anne)

> "Like I decided I'm not having surgery. Like, I was in a private room and I had time to lie in there and think about it and I decided I wasn't doing it. Maybe I'd just go home... Because, you know, in your head you know better. But then all of a sudden you think maybe you have a little bit of control, right?" (Darlene)

> "So he (the general practitioner) said 'I'm going to make an appointment to see Dr. (Cardiologist)'. So I cancelled it. So I went to visit my sister..." (Fran)

Ultimately this behaviour, floundering in an attempt to attain control, was rarely successful in regaining control or easing the associated fear or tension.

Normalizing

Getting through the phases of having cardiac surgery and ultimately, being able to successfully move on, was also influenced by how the women were able to fit changes related to having the surgery into their lives; or how they were able to normalize. Normalizing progressed through changing normal, evolving normal, to redefining normal. Although there was a focus on the physical changes during normalizing, the nature of these changes varied with the phases of having cardiac surgery.

Changing Normal. In the early phases, while the women were 'waiting' and 'getting there', there tended to be a focus on the alterations to their perceived norm. There was a recognized change in what should be. There were changes; symptoms of cardiac disease which, over time, could no longer be ignored. For some, these symptoms were subtle, slow, and insidious.

> "And I knew I was terribly, terribly tired... And the interesting thing was that food tasted awful. It was like eating cardboard." (Anne)

> "But as the time went on, that was one March to the next March, in that time, ten or eleven months, I kept getting a little worse and a little worse and I used that nitroglycerin more and more." (Jane)

There was occasionally, attachment of symptoms to some other cause that 'fit' the present self concept.

> "The week before I went in, I had chest pains, but I thought it was indigestion." (Fran)

For others, the symptoms were sudden and unavoidable in onset.

> "It happened at home, here before I was going out to the doctor. Um, my friend was calling for me. Now what happened was like a numbness across the chest, the back of the shoulders, down the arms to the finger tips, up into the top of the jaw bone, and uh,... It was just a strange feeling." (Irene)

Ultimately, none of the women were able to continue to feel or do what they used to consider was normal.

Evolving Normal. Following changes associated with actually enduring the surgical procedure, the women were in a period of learning new rules, limits, and norms.

> "I did not realize how physically weak I would be, um, you know, because I mean if you're doing nothing but laying in bed all day, you know, and I mean a little walk up and down the corridor is nothing... But boy the first time I got dressed and I thought 'My God!'. And then to come home and just, to physically get up those three steps. I thought, 'Gee, I can't do this!', you know." (Anne)

They experienced evolving changes in their norm during the phases of 'surviving' and 'being there'. Anne was able to express this particularly well.

> "... that you can go so far and then you have to rest and then you pick up again." (Anne)

> "... my memory now is getting better. But even so, if I am pushed now, um, I will forget something, you know, just a little thing, but still... But that's getting better. It's kind of scary." (Anne)

> "... because one day I had come and made this, oh really delicious dinner. I had worked at it quite a bit. And I sat down here to eat it and thought 'Oh my God. I'm going to keel over.' So I just crawled over to the couch and keeled over. And what it was, you see, was I had spent too much time without resting. And that came to be very, very important; that you did something but then you rested." (Anne)

These are called evolving changes to the norm because the assumption is made that they are progressive in nature.

> "Oh yah, yah, there is alot more to come back, you know. It's not finished yet, but yes, it's coming back. Um, it's quite interesting and (a) different sort of glue, you know. But yah, it's coming back; it's slow." (Anne)

Ultimately, this was a time of learning and constant adjustment.

Redefining Normal. Eventually, when the women were ready to enter the phase of 'moving on', there was a time when they were able to redefine their norm. At this time, the women were able to identify and accept the 'new me' and the 'new norm' for better or worse. The changes associated with having had cardiac surgery were eventually incorporated into their self concept.

> "... now I realize I am stronger than what I ever thought I was." (Carol)
>
> "I know I will never... (be) the same." (Grace)
>
> "Now I'm fine. I am better now than before I went in... That again, that different outlook. You take time to smell the roses." (Fran)

Some continued to experience difficulties from the surgery which they hoped would dissipate over time. However, they also learned to successfully deal with these problems and not have them become a focus of their surgical experience. For example, Betty experienced problems with memory following surgery due to some neurological complications. She has had to incorporate a variety of methods of triggering her memory into her work and home life. Yet she is able at this time say, 'If it gets better that would be great, but I'm dealing Ok with it now'.

The younger women, Betty and Carol, have also expressed concerns about the numbness in their breasts following surgery. This numbness affected Betty's ability to enjoy a satisfying sexual relationship with her spouse. Concerns about their future ability to successfully breast feed an infant were also identified. However, though disturbing, these problems did not affect their ability to feature a positive and satisfying outlook for their future.

Although the process of normalizing followed the changes associated with the identified phases of having cardiac surgery, it was also apparent that if a woman endured an extended waiting period, she may have also engaged in more than the primary phase of normalizing during this waiting period. The amount of time that a woman experienced symptoms or changes associated with her cardiac illness or anomaly while waiting for surgery, virtually pushed her along in the process of fitting these changes into her life. However, this was never fully completed prior to having surgery as the perception, or interpretation of this scenario remained, that these changes were temporary and would change again following surgery.

> "But I mean, like I haven't been able to, the last year, I have not been really able to do, to lead a normal life." (Darlene)

Making Sense

Making sense, or developing a personal interpretation of the experience of having cardiac surgery, at every phase, was critical in how this experience was managed. Making sense of this experience involved the development of an understanding (meaning of) and perspective (the proper relative position of objects or phenomena one perceives) of having cardiac surgery in relation to the women's world view. Making sense is a process by which the women were able to create some cognitive 'order' of what they were undergoing. Some women simply called this 'attitude'. The women demonstrated a variety of means of interpreting the situations or events surrounding having cardiac surgery. These included comparing, verifying, clarifying, and reasoning.

Comparing. 'Comparing' was a means by which the women were aided in making sense of their situation. They were able to reflect on past personal experiences (be they hospitalizations or life events) and the experiences of others (known experiences of friends and family, or observations of others in hospital), and gain some perspective of this experience.

> "I felt luckier than most people. I was in there with five old men. So I felt luckier than them because one man was coughing an awful lot and maybe they could have eliminated their problems if they had surgery at my age too." (Carol)

> "Because I remember my brother. He had it (endotracheal tube) in for nine days and then he died. So that you know, I didn't know how I was going to have, you know, that was going to be still there." (Grace)

> "And then, I was eight days after surgery in hospital. Everybody went home already, and I (was) still there." (Grace)

Their life experiences were brought to this event and used in development of that perspective.

> "My sister and I have talked about this quite a bit, because of the sort of family we are. My mother went

> through (a variety of illnesses)... and she kept going, And this seems to be a characteristic of our family; that we do not sit down and say 'Oh (poor)... me.' We just keep going." (Anne)

> "Perhaps the way you have been meeting your other problems, too in the past, would have something to do with this too. If you haven't been able to deal with even the smallest little thing in life, you aren't going to be able to jump and say I'm going to fight this because you wouldn't know how, you wouldn't be ready for it." (Fran)

Verifying. 'Verifying' was another means by which the women in this study were able to develop a perspective and interpretation of the events surrounding cardiac surgery. The women succeeded in verifying, or proving things to be true, through evaluating and questioning (Do I need this?, How am I doing?, Was it worth it?, Can I do this?, Is this right?, Am I like the others?) others, be they other patients, health care personel, family, or friends.

> "Not the way I was going through nitroglycerine. It was just, I was supporting the nitroglycerine people. I... you buy a hundred pills and they do you only twenty days, that's not right. I'd go to bed and sleep a couple hours and wake up and I'd need one. I'd go to the kitchen and I'd sit there sometimes for an hour after two or after three thinking that if this doesn't settle down I've got to dial 9-1-1 and get in. But it settled down time and again, just until the next time and I took, it was just too late before, every hour on the hour all night long. That's not the way it should be. That's not, it doesn't show you that you're healthy or that you're improving or that some of the blockages are dissolving, because they certainly aren't." (Jane)

> "Yah, I want to know, kind of, um, um, without telling me the whole thing of your thesis, you said... (there were other women). How have they responded to your questions?" (Anne)

> "I remember saying 'He's got to be kidding. I've lived for (all these) years, I haven't had any

> problems before, and now he's saying I need to have open heart surgery!'... but then he said 'That's one of the reasons why you're so tired'. And so then I thought, well that makes sense. And I remember always being tired even through going to school and stuff." (Carol)

> "I want to know exactly what they're going to do to me and what, you know. I want to know. But then see, I want to know it the way it is... So I guess we have to tell our doctors if they don't know us that we want to know it the way it is. Cause I do." (Darlene)

> "Every day I went a few steps further, you know. That was the only thing that I see that I'm improving." (Grace)

> "And now that I have had it, I have felt like I have more energy. Like I can really feel the difference!" (Carol)

Through verifying, the women were able to confirm or substantiate (establish by evidence) an understanding of this experience.

Clarifying. 'Clarifying' was another means by which the women in this study where able to make sense of having cardiac surgery. By seeking information, or in other words, filling in the blanks, the women were able to make clear the experience they were enduring. They were thereby able to enhance their understanding of this process.

> "And he said, 'Oh!'. He said, 'Look', he said 'We almost lost you!'. I said, 'What are you talking about?', and then that started the whole, you know, more questions. So I keep talking to people and finding out these little things." (Anne)

> "Well now I've got that all down pat. Cause... they told me to do what the doctors says, but pick one doctor. I picked my own doctor... (I) can't listen to everybody; everybody talks differently. You know, no two doctors are the same anyway. I don't care if they both do heart surgery or what. They're not the same people... I think a person who has this should take

> one person and listen to him, not a whole bunch of them. Because it's confusing and it's scary." (Fran)

> "I am that kind of person. I have to know what's going on, before I get frightened. But once I see it I'm fine." (Edith)

Reasoning. 'Reasoning', through contemplation and analysis of this experience, was another means that the women used to make sense of having cardiac surgery. Through reasoning, which has been identified as a more solitary pursuit, they were able to develop an understanding and perspective of having had cardiac surgery. In other words, they pondered the impact that having cardiac surgery had on their lives.

> "At this time I am um, um, much better mentally, but I have to work at the physical, you know, just because of the operation. Actually, I was very angry about alot of things, um, I just shoved people away, kind of you know. And then nobody um, came near me. Well of course if you put spikes on the road, of course nobody's gonna come near you, you know." (Anne)

> "It's definitely earth shattering. Like it really does do something to your whole. And it does give you a different outlook on life I suppose. Because you value life a little more. Like you do. I mean I don't think you could do it and I mean, OK, once maybe, but now that I've had it done twice, there's no way you can have it done twice and not have no respect for life." (Darlene)

A major element in reasoningwas recognition of the emotions experienced while enduring cardiac surgery.

> "Like I'm terrified of anaesthetic. It doesn't matter if they were taking out my tonsils or what they were doing to me. Actually the silly part is, the heart surgery, other than the fact that I wake up with a (an endotracheal) tube, you know, in my throat, I'm just as scared as to have my tonsils out." (Darlene)

There was also some reevaluation of their lives and priorities.

> "I have a kind of love hate relationship with my job. Um, uh, I love the content of it... I'm also hitting the forty-fifties. Oh, I'm not going to set the world on fire and maybe you'd better be content with what you have. You know, and maybe I really do have to measure the fact that they are tremendous friends and you know support people and that it is a subject (her job) that I have alot of knowledge in and that I am very interested in at this point." (Anne)

> "You learn that you don't take things for granted. Even life itself; you don't like to take it for granted." (Carol)

Core Variable

The descriptions that the women provided of their cardiac surgery began with the onset of the cardiac symptoms for which surgery was required. The women in this study implemented a number of behaviours and strategies to assess relationships, to make sense of, take control of, and normalize what was happening to them through the phases of having cardiac surgery. The findings indicate that the behaviours in which the women in this study were engaged, were directed toward getting through the surgery as best as they could, from onset of illness to recovery, with as little disruption in perception of self as possible. The core category which has emerged from this study is, therefore 'preserving the self'.

Preserving the Self

This is the category to which all other categories relate and which accounts for most of the observed variation in the stories told by the informants (Glaser & Strauss, 1967; Glaser, 1978). "Experiencing an alteration in self-perception presents an overwhelming threat to a... (person's) sense of self... Any loss of conventional self-concept may contribute to a feeling of loss of self" (Wright, 1987, p. 484). How each woman in this study was able to preserve her 'self', through having cardiac surgery, was a determining factor in how she was able to get through this experience and to successfully move on and away from it.

The process of 'preserving the self' when having cardiac surgery was continuous and pervasive through the identified phases of having cardiac surgery, from getting there to moving on. For these women, 'preserving the self' while having cardiac surgery, meant struggling with various role and interpersonal matters. The perceptions which the women held about themselves stemmed primarily from these dimensions. The women's perceptions of the roles they held, via role expectations and role performance, and their associations with others, were the foundations from which they approached 'preserving the self' when having cardiac surgery.

Generally, women in this study, whether working outside the home, in the home, or retired; whether married or single; whether mothers or without children; perceived and defined their illness, progression of recovery, and wellness based primarily on their domestic role in the home. When reflecting on their illness, descriptions were like this:

> "Cause, by the time I went in for surgery, I was doing nothing, really. I could shower by myself, big deal. But I could not, I mean, there was days I made meals, there was days I did dishes. But I haven't been able to vacuum. I haven't vacuumed for the last just about a year. Because I was so bad by the time I got a bed to have my surgery, that I was in partial, you know, heart failure all the time. Like I was not able to do, really next to nothing." (Darlene)
>
> "I couldn't even mop the floor or use a vacuum cleaner... I couldn't hoe the garden, I couldn't do that." (Edith)

When talking about their recovery, descriptions continued to be based on their domestic role performance in the home. These descriptions were like this:

> "I found that I remember one night here making supper and I had been kind of tooling around the kitchen doing little things you know, not heavy things, making supper, but it had been steady and I had not sat down at any point to get a rest, and that seems to bring it (exhaustion) on." (Anne)
>
> "Oh I mean, I iron... You see ironing hasn't bothered me. Some stuff I need to be ironed. And I mean I'm quite capable of doing dishes and doing lots of things. I can't vacuum and do windows and stuff..." (Darlene)
>
> "I couldn't do much, much around. I barely got the meals ready." (Edith)
>
> "Ok, when I got better... I could prepare my meals." (Grace)
>
> "I've done my washing. I take it to... light loads, across... the laundry is right across from me here. And uh, I just make my bed every day. And uh, I did try to iron a pair of slacks the other day, but my leg ached so much by the time I got finished... I didn't uh... but I did iron one pair and I intend to iron some more." (Helen)

Once returning home, each day Fran did a little more for her children; like fruit salads for breakfast and making more exciting lunches, as a means of telling them (and likely reminding herself) that she was getting better. She didn't want to worry them, so did what she could to remind them that 'things hadn't changed' and that she was 'going to be alright'.

As the women in this study progressed and began to see themselves as well again, their domestic role expectations continued to be an important influence on their perceptions.

> "... you know you find something like lifting heavy things, like my granddaughter's three. And I can actually pick her up and it doesn't hurt... Oh, when I go shopping... that's a big story... And another thing that I found out, making bread, the kneading, that doesn't hurt, nothing hurts anymore. Like the ten kilogram bag of flour, I lift that up no sweat. But you do that when nobody's looking because they'll give you heck eh?" (Fran)
>
> "But uh, I've been doing pretty good. No problem. I went down to clean my basement this morning and vacuumed." (Edith)

Carol is now looking forward to her future as a mother; pregnancy is no longer a concern for her. Although Betty is pleased about being back at work, she is also looking forward to having another baby; a means of displaying her wellness or 'normalness'.

The women in this study engaged in household tasks, or in other words role related behaviours, as a means of testing and assessing their recovery progress. At times, women had to develop some very creative and occasionally disturbing methods of dealing with their role performance in the home.

> "There were things I couldn't do; lift the vacuum cleaner. I had to throw it on it's side and get down on my knees to knock it (down the stairs)." (Irene)

Many very quickly pursued what they considered their regular role in the home by ironing, doing dishes, and cooking, despite being aware that it was likely not in their best interest to do so. Many prefaced their statements about trying housework with 'Well, they told me not to do this, but...'. Many identified a feeling that asking others to do their work (housework) was unjust, or unfair. By doing their 'own' work, they were testing to see if they were getting better. Darlene expressed her feelings about housework as a means of 'testing' like this:

> "I got sick and tired of being sick. That's exactly what it was; and not having control; not being able to do what I thought I was capable of doing. That's exactly what happened to me. I mean I feel good enough to do it, why can't I? And yet I'm not stupid. I realize what happens if I do. But then there was days when I almost thought, 'Well hey, I will if I want to.' But you don't. So then it just made me miserable. That's exactly what it was; just sick and tired of being sick." (Darlene)

These women were pursuing the physical activities which they associated in the past with their own wellness; role related activities.

Furthermore, several women made unsolicited statements 'off the record' about themselves compared to men. These statements were made when the researcher was explaining the study as a study of only women. Apart from the comments like 'It's about time!', came comments like 'It's important that men hear a woman's story about heart surgery. Men leave their jobs for as long as they need to when having surgery and then recuperate at home. Women can never do that.' (Darlene) and 'You know it's great for a man to have surgery, there is always somebody to take care of him.'(Jane). Particularly following the surgery, women expressed frustration at trying to engage in meeting their most basic needs. Their perceptions of role did not include having others engage in what was perceived as their 'work' or of them being the receiver of care.

> "... you raise your family and you do everything on your own, and then all of a sudden, you can't do nothing."
> (Fran)

The women in this study, when having cardiac surgery, needed help from others. They were in a position of needing care when they had been used to, in their perceptions of their roles, being the providers of self-care or care and nurturance to others. These women did not feature themselves as the focus of another care provider. The women needed and resigned themselves to accepting care while in hospital, usually from nurses. Yet when home, husbands, daughters, daughters-in-law, were used to help them with toileting, showering, or even getting out of bed. Not all felt comfortable in this new position of accepting care. Although the older and previously infirmed women who lived alone were afforded a home care aid for personal care and some homemaking duties (which they were in the pattern of accepting), this was not a service offered to the other women whether young or old. They often stayed with family members for a short period of time, until returning to their own homes.

Role aspects also involved elements of the women's perceived position in the family. For example, Fran did not perceive that preparing meals that met the criteria of a cardiac diet was worth 'putting her family through'. She was also frustrated with what she felt was the financial cost of meeting the requirements of a cardiac diet. Consequently, she dismissed the need to do so. It is of interest however, that she was very concerned and prepared to do what was necessary to ensure that her diabetic child had a suitable diet whatever the cost. Fran was prepared to nurture, but not be nurtured.

Relationships with others, particularly peers, is also another element of position or role. Several women identified 'off the record', that they felt they had lost some friendships as a result of their illness and surgery. This concern was brought up by a few women late in the relationship between informant and researcher, after trust had been developed. These women wanted to know if others had experienced this kind of difficulty. Darlene identified that some friends treated her 'different' and added that she felt she had lost some friends because they were either afraid of what she might 'do' in front of them or that she was a reminder to them that their own ill health was always possible. Grace identified that some people didn't want to be her friend now that she wasn't a 'perfect human sample'. Betty shared that she felt some people were uncomfortable around her because she reminded them of our 'human mortality'. All women who had experienced a change in relationship or a loss of relationship with peers, identified that this was particularly difficult to deal with. Grace stated that loosing friendships during an illness was like 'getting kicked when you're already down'. Conversely, some women found that there was some status found in having had surgery and some confirmation of their role or place in relationships with their peers.

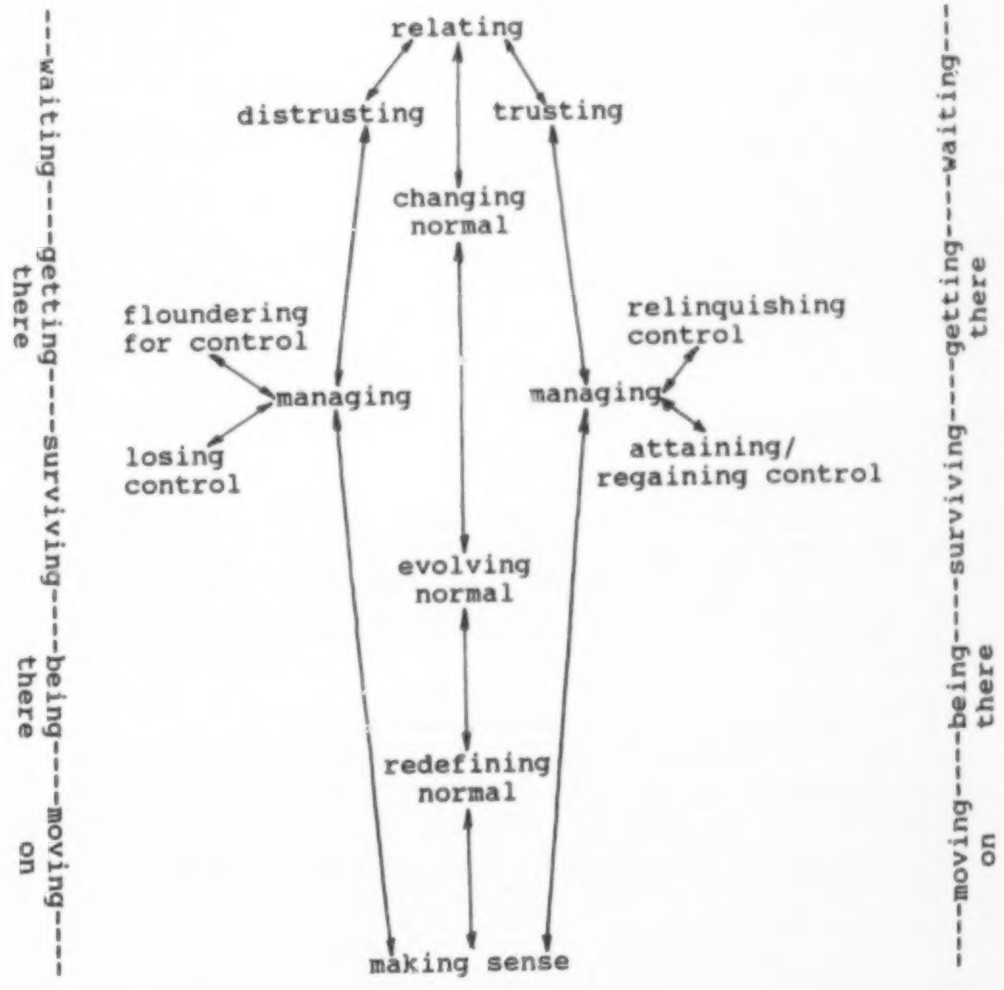
The dimensions of preserving the self while having cardiac surgery, included role expectations which the women in this study held, be they in the context of family, work environment, or social network. Furthermore, the interpersonal connections which these women held were critical components in preserving the self while getting through cardiac surgery.

Having Cardiac Surgery

How the women in this study proceeded through having cardiac surgery rested on a number of integrated factors, identified as categories from the research data. The core variable, preserving the self, to which all the categories relate, was the key process in having cardiac surgery. As the women moved through the phases of having cardiac surgery, certain categories were more pertinent, though all continued to have some influence in the process. A pictorial representation of this process in found in Figure 1.

'Waiting' was the period of time from when the women knew they needed to have surgery until they entered hospital. The women who waited for their cardiac surgery, felt that there could be no planning of their day to day lives or of their futures until the surgery was over. Plans were made for going into hospital, but notably absent were plans for recovery. Their struggle to preserve the self arose at this time, as they were likely enduring a variety of changes in their physical well being and their capability to actively engage in their previously defined roles (changing normal). Some women had symptoms of illness that worsened during this phase, which made them frustrated and concerned that they wouldn't get the surgery in time. Furthermore, many women were going to the health care system for assistance and asking for help. The effectiveness and perceptions of these new relationships, also had an impact on the women's ability to manage the situation; as under or out of their control. They were also trying to making sense of these physical changes, role changes, and perceptions of new (health care system) and old supporting relationships. The waiting period was a time of significant change for many women in a variety of aspects of their lives, thus profoundly affecting their ability to preserve the self. Most, at this time just wanted to get into hospital, and to have the surgery; to

Figure 1. Preserving the Self Through Cardiac Surgery


---waiting---getting there---surviving---being there---moving on----
relating
distrusting
trusting
changing normal
floundering for control
managing
losing control
relinquishing control
managing
attaining/ regaining control
evolving normal
redefining normal
making sense
----moving on---being there---surviving---getting there---waiting---

get it over with.

'Getting there' was the phase that occurred when the women entered hospital and were actually getting ready to have the surgery. It was described as a very active time, of teaching, testing, and touring of the nursing units. How this situation was managed was based on the women's assessment of trust in relevant relationships, and to some degree, their ability to make sense of the situation. For some, this was a time, primarily, of easing frustration because they had finally made it into hospital. By now, preserving the self took on the element of preserving one's life, meaning finally getting to have the surgery. For others, usually those who have not had an extended waiting period, facing imminent surgery was a very frightening time. Surgery was perceived as a threat to preservation of the self; a threat to their life.

'Surviving' was the period of time when the women began to waken from the haze of disorientation following surgery and become aware that they were alive. Most, at this particular time, described perceptions of being out of control. These related to the mechanical experience of the surgery (intubation and ventilation, chest tubes), and the pharmacological experience of surgery (feeling 'out of it', experiencing hallucinations). Furthermore, there was a profound disruption in their definition of self; in the new role they occupied as patient, new look to their bodies, and in the scope of the relationships held with others (both health care personnel and family/friends). Their ability to make sense of this phase of having cardiac surgery was generally based on past experience. Yet impaired cognitive and emotional function at this time, made this process of developing some perspective about what they were enduring, difficult at best. The length of this phase varied with post operative illness and complications. Generally, it was longer in duration for the older women; yet was longest for a woman in her fifties.

'Being there' was the phase when the focus was on getting better. There was an element of being in survival mode when the women's major concern was to continue to live and to get better. Preserving the self was the goal. Realization occurred however, that there was a long road ahead before this was going to occur. Getting better involved learning new rules, limits, and norms (evolving normal) when the women identified actions that could be taken to help with or achieve some success in daily living activities following surgery. For some this was not possible, and this realization took time to incorporate into the sense of self. This was often a frustrating time of learning and constant adjustment. Management of this phase varied with assessment of relevant relationships and establishing some sense of the situation. For the younger women particularly, feelings of vulnerability and lack of success in preserving the self were distiguishing characteristics of this time as they were unable to function in their previous role and interpersonal capacity for some time following surgery. This also lead to continued perceptions of the situation being out of control. Conversely, the older women accepted help from others and experienced fewer feelings of vulnerability, leading to continued relinquishing of control to others. For all, though in varying degrees, there was a constant struggle to preserve the self in light of rather constant and profound changes.

'Moving on' occurred when the women were able to carry on with their lives apart from having had surgery. Having surgery could be put in the past. In other words, they were no longer living the surgical experience. This occurred when the perception was held that control had been attained/regained, relevant relationships were assessed in a more trusting and acceptable context, some meaning had been established about this experience, and a new normal had been accepted for better or worse. This phase had not been entered by all women in this study. Some continued to harbour feelings that their current health and well being were not yet acceptable, that their health remained a function beyond their control, or that there had been an unacceptable change in status of relevant relationships as a result of the cardiac surgery, or that they were unable resolve the struggle to develop some meaning to the experience. Overall, those who were able to come to some resolution of the struggle to preserve self, when having cardiac surgery, were also able to move on from this experience. In short, how the women in this study were able to preserve their sense of self, through the process of having cardiac surgery, was a determining factor in how they were able to proceed through this experience phase by phase, and to ultimately successfully move on.

CHAPTER 5

Discussion

The purpose of this study was to develop an understanding of what the process of having cardiac surgery was like for women. The findings indicate that there are identifiable phases to the process of having cardiac surgery, beginning with the onset of the cardiac symptoms for which surgery was required and ending when the women were able to move on, apart from this experience. The women in this study implemented a number of strategies to get through having cardiac surgery. These included, assessing relationships, as well as making sense of, managing, and normalizing what was happening to them throughout the phases of having cardiac surgery. These behaviours were directed toward getting through the surgical experience, from the onset of illness to recovery, with as little disruption in their perception of self. Thus, the core category which emerged from this study was ‘preserving the self’.

Past and current research has identified various stages of adjustment to the recovery process following cardiac surgery that culminates in a relinquishing of the illness and moving on in their lives apart from having had the surgery. In this study, having cardiac surgery culminated when the women were able to integrate the physical, cognitive, and emotional changes associated with the surgery into their lives. Much of this, though interesting, is again not unique to this study or to women. Until now, few studies have been done with comparable groups or large cohorts of women. Few have been able to account for any differences between men and women save to say that women don't do as well. The question that the findings of this study addresses is what is the process of having cardiac surgery like for women? The underlying process of 'preserving the self' was identified by the women in this study. Assessing relevant relationships, making sense, normalizing, and struggling to manage the situation, all occur in the context of preserving the self; which was central to their ability to get through the cardiac surgery experience.

It is necessary to elaborate on the relevance of these and other serendipitous findings about women who have cardiac surgery, to compare and contrast them with current knowledge and practice. Again, it is important to be cognisant that the majority of the research cited includes predominantly male subject groups. There are either no women or small cohorts of women from which virtually no valid or reliable conclusions can be derived. Implications for nursing practice and for further nursing inquiry will also be envisaged.

Preserving The Self Through Cardiac Surgery

Moos and Tsu (1977) acknowledge that physical illness "almost always represents a serious 'upset in a steady state.' A person may face separation from family and friends, the loss of key roles in his or her life, ... (and) assaults on self-image and self-esteem" (p. 7). Strauss et al. (1984) and Strauss and Corbin (1990) used the word 'work' when referring to the experiences of patients in hospitals. This 'work' refers to the activities in which patients engage, which are often quite invisible to health care providers. The findings of this study indicate that the 'work' in which women were engaged while undergoing cardiac surgery was preserving the self; in other words, trying to maintain a steady state when facing the 'upset' as described by Moos and Tsu.

Though women's sense of self has been viewed as imbedded in what it is they do, or their role behaviours (Parchert & Creason, 1989; Sharpe et al., 1991; Varvaro, 1991; Wagnild & Young, 1990; Wright, 1987), there is a growing body of literature that supports the notion that women's sense of self is further imbedded in their associations with others (Belenky et al., 1986; Gilligan, 1982, 1987; Miller, 1986, 1991). The process of preserving the self was contingent on role related behaviours and expectations, connections held with others, and their perceptions of what they were enduring, and was pervasive throughout the process of having cardiac surgery.

Wright (1987) identified cardiac surgery as an event which disrupts self-concept and normal role definition. Leech (1982), when studying patients with arterial occlusive disease, found that "difficulties coping with alterations in self-concept and role function were closely related" (p. 444). Varvaro (1991), when studying women who have cardiac disease and surgery, viewed the sense of self as a combination of 'self concept, role function, and interdependence', which need to be considered when caring for women who have cardiac disease and surgical treatment.

Preserving the self while getting through cardiac surgery was an encompassing task. Women who were able to 'preserve the self' through the process of having cardiac surgery were able to move on from having had cardiac surgery and express a more positive outlook about the experience than those who were unable to do so. Those who were unable to preserve self through this process likely persisted with perceptions of lack of control, making the inherent changes associated with having cardiac surgery much more difficult.

The ensuing discussion about having cardiac surgery has been divided into sections specifically addressing the categories identified in the findings of the study. However, though distinct from each other, these categories are interrelated and highly interconnected by the core variable of 'preserving the self', and can best be understood in the context of the process of 'preserving the self'.

Moving Through Cardiac Surgery

The findings indicate that having cardiac surgery occurs as a process, with identifiable phases which posed varying challenges to the women's sense of self. King (1985) stated that "cardiac surgery was a dynamic, unfolding process" (p. 585). This finding is not unique to women or to those having cardiac surgery. Other researchers have identified that there are phases of having cardiac surgery (Jillings, 1978; Keller, 1991; Pieper, Lepczyk, & Caldwell, 1985; Rakoczy, 1977; Wilson-Barnett, 1981), a myocardial infarction (Johnson, 1988), as well as other types of surgery (Leech, 1982; Gould & Wilson-Barnett, 1985). Keller (1991) found the process of recovery from cardiac surgery was "one of moving forward, enduring a range of suffering and lifestyle changes in an effort to return to a familiar lifestyle" (p. 177). The findings of the current research concur in that having cardiac surgery is a process, directed at getting through and moving on from the phases of having cardiac surgery. What makes this process unique to women will be the focus of the ensuing discussion.

The circumstances of the women in this study who were non-emergent cases were unique. In the literature, waiting periods for cardiac surgery are assessed in varying degrees, generally days, weeks, or few months; not years.

The women in this study had an average wait of eleven months (and up to two years) to have their surgery; a phenomenon which is rarely cited in the literature. Furthermore, they were generally given less than a day's notice of when their surgery would occur (unless they lived out of town). It clearly was the case that these women couldn't plan their day to day lives, or make decisions regarding their futures, as they had virtually no indication of when they might be called to have their surgery. The women who had an extended period of time to wait for their surgery, became progressively more concerned about their worsening symptoms and getting to surgery 'in time'. Once receiving the call to come into hospital, and when in hospital waiting for surgery, they were very relieved that this wait and worry was now over.

The findings of most studies agree that the waiting period to have cardiac surgery is a very difficult time. Mulgan and Logan (1990) found the waiting period as a time of increased suffering and asserted that this phase should therefore, be given more attention. Gilliss (1984) reported that the waiting period for surgery was the most difficult of all for patients and families.

Blancher (1987) described the waiting period as "living in a state of suspended animation with a certain degree of anxiety that bubbles up occasionally. However, despite a previously high level of anxiety,...

(immediately) before surgery one often sees a dramatic decline of tension" (p. 47). Folks, Freeman, Sokol, and Thurstin (1988) concluded that denial (a conscious or unconscious means of reducing the threat of a perceived stressor) is at particularly high levels preoperatively and that it's use might prove to have a positive effect on the individual readying to have cardiac diagnostic testing or surgery. "Denial can 'detoxify' symptoms of anxiety-depression and improve outcome from a diagnostic or surgical procedure" (p. 62). Blancher (1987) and Folks et al. (1988) espouse the use of denial as potentially helpful and adaptive in reducing anxiety in the immediate preoperative period. Their research conclusions thus, account for and substantiate the finding of 'relief' experienced by the women in this study, when entering hospital, during the getting there phase. In addition, Gilliss (1984) found that following a long wait for cardiac surgery, patients and their families may deny "any stress associated with the hospitalization itself. Rather, they... (may express) relief" (p. 105) that the wait is over. The relief expressed during the getting there phase by the women who had an extended waiting period, is also consistent with the observations made by Gilliss.

Conversely, Pieper et al. (1985) identify that "those who have a longer period waiting have the time to seek the information needed to enable them to adapt... the longer the time... (waiting for surgery), the less was the perceived effect of waiting on life" (p. 43). The findings of this study do not concur with this proposal, as the majority of women were concerned that their physical condition would worsen and their lives would be risked by the extended period of waiting.

Rakoczy (1977), when studying the waiting period prior to cardiac surgery, identified four phases to the waiting period; confrontation (when the individual is faced with illness and reality of impending surgery), self-reflection (when on reflection, the individual tries to explain the problem and deals with loss of control or guilt about it), resolution (when resolution of the struggle to incorporate the meaning of this experience into the self-concept), and countdown (the day before surgery, when time is counted off, and there is less identified anxiety). Although the waiting period was not studied in as great a detail in this research, the interactions identified between the changing normal (identifying and accepting changes or symptoms of the illness) and making sense (developing a perspective about the impending surgery) by the women in this study, are supported by Rakoczy's findings. Furthermore, Rakoczy found that the subjects reported a decrease in anxiety immediately before surgery. This finding is also consistent with this and other research.

The findings of this study indicate that the length of wait prior to having cardiac surgery compounds the apprehension felt by women who are waiting. The longer they waited the more profound effect it has on their day to day lives. This is not to say that those who were relieved to enter hospital were not concerned or fearful about their surgery. But the relief experienced about entering hospital to have the surgery, certainly had a positive impact on their perception of the event. Those who had emergent surgery, suffered from profound trepidation about the surgery and did not experience the relief that those who had an extended waiting period did.

Keller (1991) and Jillings (1978) identified that the subjects in their studies endured similar phases to the surviving, being there, and moving on phases described as findings of this study. According to these researchers and the current findings, once aware of their surroundings following surgery, subjects experienced a short period of euphoria following surgery when realizing that they had lived through it. The women in this study found that the 'survival' phase also encompasses the time lost to the surgery itself through anaesthesia and sedation. For some, this phase was further extended due to postoperative complications. Other studies have indicated that postoperative difficulties are more common for women (Bickell et al., 1992; Rankin, 1990; Solkol et al., 1987;

Steingart et al., 1991; Tobin et al., 1987). Therefore it is possible that the surviving phase as identified in this research, and as described by others, may be prolonged for women. Yet, once awake and aware of their surroundings, the women in this study found this phase became short lived; particularly in light of facing the 'work' that was ahead of them to recover from their surgery.

As identified by Misra et al. (1982), technically successful surgery does not guarantee perceived success by patients. Readjustment to postoperative life plays a critical role in determining how patients perceive having had cardiac surgery. Radley and Green (1985) concur when identifying that adjustment styles following cardiac surgery are what determined patients' perceptions of their experience, not necessarily physical symptoms. Much of the 'work' of recovery from cardiac surgery occurred for the women in this study during the 'being there' phase. The women in this study struggled with the physical, cognitive, and emotional aspects of having had cardiac surgery. They attempted to confront this struggle by developing a perspective about their experience (making sense), about the changes they perceived (evolving norm), and to develop a sense of control in managing this experience. Women who were successful in these endeavours generally had a more positive outlook about the experience of having cardiac surgery despite the objective physical outcome. Those who were unsuccessful in these endeavours had a persistant negative view of the experience and of their outlook for the future. Work of this nature while enduring a stressful event, is not unique to women or to those having cardiac surgery. It is identified in the literature about general surgery (Mumford et al., 1982; Gould & Wilson-Barnett, 1985) and myocardial infarction (Johnson & Morse, 1990; Parchert & Creason, 1989) and certainly as an occurrence in men.

Psychological disturbances following cardiac surgery are commonly cited in the literature, and tend to occur particularly at a time which coincides with the 'being there' phase identified in this research. The feelings of depression, anxiety, and poor quality of life, which have been identified as more common in women following cardiac surgery, as compared to men (Douglas et al., 1981; Gortner, et al., 1988; Kos-Munson et al., 1988; Wilson-Barnett, 1981), although there is some controversy as to whether this actually is so (Rankin, 1990; Solkol et al., 1987), may be, at least partially accounted for by the phase in which they occur. It is not surprising in light of the physical, cognitive, and emotional difficulties inherent in having cardiac surgery, that people would experience psychosocial upset. Yet, for women, there are further psychosocial challenges to an already difficult process, the process of 'preserving the self'.

The women in this study who were able to successfully move on from the surgical experience, came to terms with the struggles described in successive phases. Those who were able to come to terms with their new normal, for better or worse; develop a perspective about their experience in relation to their past experience and 'world view'; perceive a sense of control in their lives; and assess relevant relationships in a positive and trusting manner; were able to move on from the experience of having cardiac surgery. As identified earlier, the process of preserving the self was a much longer one for those women who continued to perceived their situation as being out of control or being beyond their control.

Relating Through Cardiac Surgery

When facing illness, the impact of positive perception of relationships, is identified in the literature as important to those who have cardiac surgery (Gilliss, 1984; Jillings, 1978; Powers, 1968) as well as with those with other illnesses (Leech, 1982; Strauss et al., 1984). However, relationships are central to the experience for women who have cardiac surgery. The assessment of relationships as trusting or distrusting, highly influenced the process of having cardiac surgery by primarily affecting the management of events; perceiving the situation as under or out of control. The perception of any one relationship will not determine the view of the entire experience of having cardiac surgery. However, the quality of relationships which the women held with others affected this experience.

Miller (1986) identifies that "women stay with, build on, and develop in a context of connections with others. Indeed, women's sense of self becomes very much organized around being able to make and then to maintain affiliations and relationships. Eventually, for many women the threat of disruption of connections is perceived not as just a loss of a relationship but as something closer to a total loss of self." (p. 83). The women's part in relationships or 'connections' as coined by Jordan, Kaplan, Miller, Stiver and Surrey (1991), were key elements in the process of preserving the self when having cardiac surgery. Studying women's connections with others must not be perceived as women being somehow deficient or lacking some separate sense of self, but as "illuminating the more unique or central aspects" (Surrey, 1991, p. 36) of women's 'self'.

Illness, subsequent hospitalization, and isolation during recovery at home, posed a threat to and disrupted many connections which women in this study held dear; whether to husbands, children, other family, or peers. Maintaining old and developing new relationships in light of serious illness was difficult at best. The impact of relational difficulties and successes were highly important to the women in this study when discussion their cardiac surgery. Though identified as a factor in other research about those having cardiac surgery, it was a dominant factor in this study.

Stanton, Jenkins, Savageau, and Thurer (1984) reported that changes in the way that others respond to cardiac surgery patients should be a consideration in preparing patients for their surgery. A few of the women in this study, off the record, and after a trusting relationship had been established with the researcher, shared that they had lamented that relationships with some friends had either terminated or were negatively affected as a result of the surgery. They identified that they were often treated differently by friends; adding that some friendships were lost as their peers were either afraid of what they might 'do'. As Darlene put it, 'Like I just might die in front of them, or something'. Some felt that their peers were reminded of the possibility of their own ill health. Some postulated that discomfort of some friends related to being reminded of their own mortality. All women who had experienced a change in relationship or a loss of relationship with their peers, identified that this was particularly difficult to deal with. Understanding those changes and accepting them had been a difficult process.

Furthermore, the women in this study found that developing satisfactory relationships with the large numbers of health care and allied personnel with whom they came in contact, was virtually impossible. Moos and Tsu (1977) identify "developing and maintaining adequate relationships with medical and other care-giving staff" (p. 9) as a major task for those trying to manage the physical illness. Development of caring, trusting relationships with nursing staff was difficult, as the women found themselves on a variety of nursing units through their hospitalizations. Some speculated that they never had the same nurse twice. Although some women spoke kindly and with appreciation about the nurses with which they came in contact, others expressed fear of judgement, or as in one case, fear of harm from nursing staff. They occasionally spoke highly of physicians who saw them through the phases of their surgery, or those who regularly saw them, posed no threat to them through physical harm or judgement; the cleaning staff.

Many of the women identified that there was a new realization of self worth in relationships with family members, following cardiac surgery. Those who did not have family members, expressed this about a few close friends. Most women were willing to admit and discuss this positive realization much more openly. Perhaps this is so because it reflects a more positive image on the 'self'. The literature abounds with suggestions that the family is important to patients undergoing cardiac surgery. The findings of this study highlight this importance, as it was from the women's families (or very close friends) that they gleaned the most support and satisfaction.

Managing Through Cardiac Surgery

The assessment of relationships which the women in this study held with others, lead to their perceptions of managing having cardiac surgery while under or out of control. Leech (1982) found when studying patients with arterial occlusive disease, that although most "considered a sense of control to be important during hospitalization" (p. 444), less than half perceived themselves to be in control. Moos and Tsu (1977), when studying illness, associated perceptions of having control with an individual's ability to cope, or manage, difficult situations. Mishel (1990) calls control a major social value and identifies control as a desired outcome for those suffering from acute or chronic illness. In keeping with these assertions, a perception of having their situation under control, enhanced the women's ability to get through having cardiac surgery.

The women in this study perceived that a situation was under control through either temporarily relinquishing control to some other trusted individual or system, or by attaining control themselves. When relinquishing control, control was either shared with, or temporarily given to trusted others. When relinquishing control the key element was that control was not lost, it was shared. Attaining/ regaining control was possible when there was increased self confidence physically, cognitively, and emotionally, to manage a situation.

Without the ability or understanding of caring for oneself through relinquishing control to trusted others, the process preserving the self was prolonged and much more difficult. Perceiving that the situation was out of control occurred when the women felt that control had been lost, or that they were floundering for control. When control was lost, it was perceived as having been taken away, or the situation was perceived as beyond the woman's control physically, emotionally, or cognitively. Either way, control was not voluntarily given away. Without a sense of trust in others or themselves, the vulnerability and protectiveness of self and others that ensued, and the sense of being out of control, hindered their ability to successfully move on from the surgery experience.

Although the focus of most women's sources for trusting relationships has been the family or close friends, another dimension of connection was religion. One woman in this study found that her religious beliefs were of consistent comfort to her during the process of having cardiac surgery. Over all the phases of having the surgery, she relinquished control to God. Though somewhat fearful of the surgery, she generally spoke of feeling 'at peace' about the experience. Other women in this study, though not as devout in their beliefs, acknowledged the presence of religion in their lives as supportive.

Other studies have found that religion and prayer can be a source of support for those having cardiac surgery. Varvaro (1991) when studying women who had cardiac surgery and illness, found "that having spiritual strength, for example having faith in God and attending church, were important" (p. 34). Furthermore, Saudia, Kinney, Brown, and Young-Ward (1991) found "that prayer is a beneficial strategy to patients in dealing with stressors associated with cardiac surgery" (p. 65). By seeking support in prayer, without the fear of feeling vulnerable to God (as feelings of vulnerability to less trusted others was a problem for some), and relinquishing control to God, those women who had religion, clearly had another source of support or connection while in the process of having cardiac surgery. The sense of having the situation under control was crucial in the way that this experience was perceived.

Normalizing Through Cardiac Surgery

Preserving the self was also influenced by how the women were able to fit changes related to having the surgery into their lives; or normalizing. The elements of 'normalizing' include changing normal, evolving normal, and redefining normal. The women experienced a changing normal when there was a recognized change in what should be and they were unable to continue to feel or do what used to be normal. They experienced an evolving normal when, following change, they endured an often frustrating time of constant adjustment while learning new rules, limits and norms. Redefining normal occurred when in the process of recovery, they identified and accepted the 'new me' or 'new norm' for better or worse and the changes associated with having had cardiac surgery were incorporated into their self concept.

Wright (1987) identified self perception alteration as "as a change in the conceptual image, including the perceptions, thoughts, and feelings that the ego has in reference to viewing its own body" (p. 483). The image that the women held of their own bodies following cardiac surgery, played a minimal part in the adjustment process following surgery. Most identified that seeing their surgical incisions for the first time posed varying degrees of difficulty, but as time passed, they agreed that having a scar was a non-issue. The younger women in the study had some difficulty with residual numbness in their breasts as a result of the incisions, affecting sexual function, but otherwise considered the scar inconsequential. These findings are consistent with those of Althof, Coffman, and Levine (1984) when studying women following cardiac surgery; "while they complained about surgical scar itching and pain, they denied feeling less attractive or disfigured by the scar" (p. 180). The change in self perceptions occurred as a result of role related and relational changes, not fundamentally in body image changes.

The women in this study assessed their illness (or changing normal) and their recovery (or evolving normal) in light of their struggle to 'preserve the self' and this assessment was based on domestic role performance. Women in this study engaged in domestic role related behaviours early in their recovery at home as a means of 'testing' their wellness, reassuring family members that they were recovering (protecting family from worry), and protecting themselves from feeling vulnerable to others' judgements about their lack of role performance.

Althof et al. (1984) found that consistently and early in their recovery, women were concerned about "when household tasks could be resumed--eg., cooking and washing windows" (p. 180). Of particular interest was that all women in this study, whatever their employment circumstance, described and tested their recovery in terms of domestic role behaviours; making beds, washing dishes, ironing, etc. Boogaard (1984), Johnson (1988), Varvaro (1991) also found that women began to 'test' themselves early on in their recovery from a cardiac event, whether cardiac surgery or myocardial infarction, by engaging in these tasks. Gilliss (1984) identified that "patients who found it difficult or painful to accomplish the activity chosen as their own 'test' became discouraged or depressed. Some reported their fear that they would never be 'normal' again. Others who did succeed in their self imposed 'test' continued to extend themselves, as if to find their actual physical limitation" (p. 106). In this study, those who took longer to return to domestic role functions identified role functions as a source of concern about their recovery. They had experienced increased feelings of lack of control, and were unable to develop a positive perspective about their surgical experience.

Varvaro (1991) identified in a study of women who had cardiac disease or surgery when reporting they were engaged in domestic role behaviours like making beds, found "performance of these activities was related to a sense of well-being" (p. 32). Sharpe et al. (1991) identified that "the greater difficulty women experienced in carrying out their daily activities,... related to household matters may be, in part, a function of female roles within the home... Performing this role in the face of illness, and/or worrying about the ability to manage is likely to lead to feelings of stress and make daily activities more difficult" (p. 39). Furthermore, they comment that retirement from work outside the home is an acceptable practice, yet women do not 'retire' from their domestic work or role within the home. It can be seen that role behaviour plays an important part of in women's assessment of their recovery from cardiac surgery.

Johnson and Morse (1990) found in a study of men and women following myocardial infarction, that "many of the women chose to 'bend the rules' and engage in prohibited activities, rather than feel dependent and watch others do their work (p. 131). Varvaro (1991) reported that dependence on others, particularly for those who had reported a past pattern of being healthy and not having to rely on others, was "bothersome... (and was related to) feelings of uselessness and isolation. The women discussed feelings of isolation from the family, role loss, and role takeover. Loss of control over their role in the family was expressed strongly. Lack of daily chore completion was a continuous problem reported by most women. Chores often went undone or were not done in the way the women would have liked, or the women had to wait until family members had an opportunity to do them" (p. 34). The findings support what women in the current study expressed: feelings of vulnerability when fearing judgement by others while ill and unable to fulfil role function demands (pre and post operatively), and lack of control when unable to accept a changing or evolving norm which prevented them from engaging in valued role related functions.

Miller (1986) identifies that "women have been led to feel that they can integrate and use all their attributes if they use them for others, but not for themselves... (which leads) to enormous problems, for it is supposed to be carried out as if women did not have needs of their own" (p. 62). Many of the women in this study, had difficulty in accepting help from others when having cardiac surgery; whether family, friends, or health care workers. Furthermore, and consistent with other research (Johnson, 1988; Yates, 1987) one woman overtly denied herself the necessary dietary and lifestyle changes for her recovery, so as not to impose on her family.

The women in this study were in a position of needing care when they had been used to caring for others. These women did not feature themselves as the focus of another care provider. Young and Kahana (1987) identify that "female patients (with heart disease) are not only less likely to have a spouse-caregiver, they also tend to care for themselves... trying to attend to many needs alone such as bathing and showering" (p. 62). The women in this study needed and resigned themselves to accepting care while in hospital, usually from nurses. Yet when home, family members were needed. Not all felt comfortable in this new position of accepting care from those for whom they have cared. Only those women who had been previously infirmed, or lived alone were afforded a home care aid for personal care and some homemaking duties. This was not a service offered to the other women whether young or old. Those younger and previously not infirmed women, likely were left alone and possibly unable or embarrassed to ask for the assistance they needed, thus demonstrating their feelings of vulnerability to judgement based on role performance.

Women in this study found that normalizing, or fitting the changes associated with having cardiac surgery into their lives, involved predominantly role and relational factors. Although there were the obvious physical changes associated with the surgery, these did not bare the same importance. Integrating changes associated primarily with their domestic roles, and relationships while undergoing the changes associated with having cardiac surgery were particularly important to these women.

Making Sense Through Cardiac Surgery

How the women in this study perceived events related to having cardiac surgery arose from how they were able to create some cognitive order or meaning of the situation, or to develop a perspective about it in relation to their 'world view'. Some informants simply called this 'attitude'. This process was identified as making sense, and was highly influential throughout the phases of having cardiac surgery. Mishel (1990) explains in the theory of uncertainty in illness, that "patients cognitively process illness-related stimuli as well as how they structure meaning for those events" (p. 256) when trying to manage illness. "Interpreting or assigning meaning... (to a situation is) difficult; the ability to cognitively structure the stimuli, to assign value to them" (Christman et al., 1988, p. 71) is an imperative process in contribution to managing a stressful situation such as having cardiac surgery.

The women utilized a number of strategies to develop a perspective about their situation. The use of these strategies varied with phase of cardiac surgery, as some were more appropriate and helpful than others. Some women utilized specific, successful strategies repeatedly. Other women used a variety of strategies, particularly when they were unsuccessful at using this appraisal as a means of increasing the perception of control.

The strategies that were used were verifying, by evaluating and questioning they were able to confirm or substantiate an understanding; clarifying, by seeking information, or filling in the blanks, they were able to make clear the experience and thereby enhance understanding; comparing, by reflecting on past personal or life experiences, or on the experiences of others, the women were able to gain some perspective; and reasoning, through contemplation and analysis of this experience, they developed an understanding and perspective of having had surgery. It is not surprising, in light of the premise of Jordan et al. (1991) that women's development and growth occurs in the context of their connections with others, that the means by which women in this study 'made sense' of their situation was based largely on relating and communicating with others. Making sense was not a solitary pursuit for the women in this study as it was done in the context of relating with others. Information from others and other's experiences were highly utilized in developing the women's perspective about this experience.

King (1985) found that "information seeking was used most often and was found to be most helpful in the preoperative period" (p. 581) of cardiac surgery and that comparison with others was helpful, but used more so in the postoperative phases. Moos and Tsu (1977) found that seeking relevant information was an important coping skill in those dealing with illness. Information seeking was a key element in the making sense behaviour of women in this study. King likens the generally effective strategies of information seeking and comparison with others to finding social support. The women in this study made sense of their experience through engaging in information seeking by verifying, clarifying, and comparing with others. These strategies to make sense of their cardiac surgery experience further exemplify that relationships may play particularly importance for women as these strategies are attempted in the context of relationships with other people. Reasoning, a more solitary strategy of making sense, though utilized by each of the women, was used less often. Methods of making sense varied over the phases of having cardiac surgery, as King also found.

Varvaro (1991) identified that women who had previously adjusted to role changes through survivorship of other major health crises, demonstrated less problems with adjustment to role function than those who did not. Thus, the making sense identified by women in this study, through comparison with past experience, is substantiated. This may suggest a potential reason for the older women in this study having had a more positive perspective about cardiac surgery, as they have more life experience upon which to reflect.

Effect of Age on Having Cardiac Surgery

As identified, the women in this study, varied in age from twenty years to seventy-nine years. Despite this variation, there were common themes to their experience that have been brought to light through this grounded theory. The women in this study demonstrated a series of strategies aimed at getting through the experience of having cardiac surgery. The general nature of the experience varied little with age. Nonetheless the older women seemed to 'do better' than the more middle aged women (forty to sixty years of age). This is not to say that they were without postoperative complication or disability. However they were all able to return to a better than preoperative level of functioning (as assessed by themselves) and subjectively felt better about the surgery than what the more middle aged women generally did. The ability of the older women to preserve the self through having cardiac surgery was clear.

Older women perceived being ill, hospitalized, and having cardiac surgery, in a more positive fashion that those of more middle age. From the onset of illness, they seemed to approach the situation as a challenge to preserve the self rather than a loss of the self; a challenge which they succeeded in meeting. Each one of these women had a way of assessing relationships with a generally trusting and accepting view. They developed a positive perspective about their experience or making sense of it particularly with the use of comparison with past life experiences. They managed their surgical experience by being under control (readily relinquishing control to the health care system and to God, then attaining/ regaining control), and integrating the physical and role related changes associated with their illness and surgery into their lives in a more positive light (normalizing).

Wagnild and Young (1990) call this ability in older women, resilience. Resilient older women, in their study, "viewed their lives with a positive and future-oriented attitude... reflected self-awareness and recognition of limitations, a belief in... (themselves) and positive comparison with others, leading to a perceived satisfaction of successful psychosocial adjustment" (p. 253). The women in Wagnild and Young's study, were identified as having both internal and external sources of strength; "positive comparison with others, belief in self, determination, sense of humour and faith in God... (as well as) family and friends" (p. 253). The determination and resolve that the older women in this current study demonstrated when having cardiac surgery, is thus not surprising in light of the findings of other research.

Steingart (1992) has stated that health care professionals should be addressing quality of life issues when studying elderly women who have cardiovascular disease, as women with cardiovascular disease endure increased morbidity in later years. Furthermore, though women are generally more ill and have poorer operative mortality, they have increased survival benefits; they feel better when the surgery is completed. Despite this, the much older women (those over seventy years) in this study, had a more difficult time convincing their physicians to refer them for surgery. This finding is consistent with those of Montague et al. (1991) who found that people over 70 years were less likely to be pereseribed therapy for myocardial infarction.

The women's resolve in this matter was apparent. They were very sure that this was their best chance for survival and for an improved quality of life. Steingart (1992) identified that increased therapeutic intervention and use of surgery should increase mortality and quality of life of older women who have cardiac disease. Johnston, Spyt, Reece, Hillis and Dunn (1989) concluded coronary artery bypass surgery had a key role in the management of elderly patients. They found no significant differences between older and younger groups studied in regards to operative morbidity and mortality, and angina was "abolished or improved in 93% of elderly patients at follow-up" (p. 165).

The experience of the older women in this study is consistent with these findings. The older women in this study had to encourage and in some cases argue with their physicians to perscribe the interventions that they saw younger patients receiving. Despite longer postoperative recovery times, these women perceived that the outcomes of their cardiac surgery were successful; preserving the self. Hence they were very grateful when they finally received those interventions.

Implications For Nursing Practice

Personal interpretation and appraisal of an experience is not a newly defined phenomenon which nurses are asked to consider in their practice. Morse and Johnson (1991) espouse the need for eliciting and understanding the patient's perspective in understanding illness, as they consider "inferring the patient's needs from the perspective of the caregiver... arrogant and paternalistic" (p. 3). Boogaard (1984) when studying women's cardiac illness furthered this argument by stating "nurses need to sensitize their nursing peers and physician colleagues to... (gender) differences and to recognize other potential problems for women" (p. 438). Nurses are in an ideal position to "demonstrate concretely the value placed on the woman's lived experiences by eliciting carefully and considering thoughtfully the woman's appraisal of the nature as well as the basis for her health problem" (Sampselle, 1990, p. 244).

Although, for the most part, the women in this study benefitted physically from their surgery, this is often not the case (Penckofer & Holm, 1990; Steingart et al., 1991; Rankin 1990). Role related functions are of high value to women in perception of self, but are poor choices of cardiovascular activity for women (Murdaugh, 1986; Parchert & Creason, 1989; Penckofer & Holm; 1990), and may be tasks which are impossible for them to manage. Nurses need to be aware of the importance which these activities have for women in their perceptions of self. With this knowledge, nurses both in hospital and in the community, are in an ideal position to councel women and their families, about the activities in which they choose to engage once home.

The finding of women's vulnerability to judgement by others based particularly on role performance, is imperative to assess when planning women's care. The women in this study while facing cardiac illness and recovery from surgery often expressed feeling vulnerable to other's judgements based on role performance. Varvaro (1991) found "ineffective adaptation to role function may have precipitated feelings of uselessness" (p. 35) in women who were facing cardiac illness or surgery. Again nurses are in a position to, by their words and actions, either enhance those feelings of vulnerability, or to use their skill to help women explore the potential for these feelings and to deal with them more effectively. "Women should be encouraged to recognize the normality of role changes and to accept help and support from family members (and others) during these changes" (Parchert & Creason, 1989, p. 62). There is a fine line between feeling support or vulnerability and feeling in or out of control. Finding that balance is within the expertise of the experienced and knowledgeable hospital or community health nurse in collaboration with the woman who has cardiac surgery.

The relationships which women held with others enhanced their abilities to preserve the self through this process. Keller (1991) concluded that her study supported the notion that social support was significant in recovery and lifestyle changes following cardiac surgery. "The informants related the importance of the presence and support of loved ones to their recovery. Health care providers may need to take into consideration, that even though critical life support tasks need to be accomplished postoperatively, the presence of loved ones may contribute significantly to the individual's participation in recovery" (p. 177). The inclusion of the family and close friends in the planning of women's care, pre and post operatively is imperative. In light of women's need to preserve the self through connections held with others, throughout the process of having cardiac surgery, perceived 'loneliness', and isolation were problematic for many and must be combatted in hospital, and at home. The role that religion may play in filling this gap should also be pursued. The role of the nurse specialist in telephone follow up with patients following cardiac surgery has been advocated as a particularly helpful mechanism in aiding patients post cardiac surgery in their adjustment to the recovery process (Beckie, 1989; Flynn & Frantz, 1987; Tack & Gilliss, 1990). Though identified as favourable in providing information and support to patients and their families following surgery, there has been no study done in light of women's interpersonal and role related needs. Given the special needs of women, it would seem even more crucial that a trusting, working relationship is developed with women before discharge (and ideally preoperatively to assist in this process in hospital, or while waiting), to be of benefit to them once home. Women need not feel judged or vulnerable to the opinions of potentially their only link to the health care system.

Implications for Further Inquiry

Further nursing research must be done to identify specific problems which women face when enduring cardiac illness and recovery from cardiac surgery. There is a beginning consciousness in the nursing community which identifies that feminism and utilization of a feminist perspective in nursing research, has a key role to play in development of nursing knowledge and practice (Sampselle, 1990; Valentine, 1992). The core category identified in this research, 'preserving the self', provides a perspective from which this process can be studied. From this perspective, nurses may gain insight into the choices women make and the context in which women make these choices, while they are ill and recovering from cardiac surgery.

As previously reported, women who have cardiac disease and surgery have not been studied sufficiently to elicit reliable and valid conclusions about what they undergo. As stated earlier, despite women's general less satisfactory physical outcome of cardiac surgery, it is the psychosocial perspective from which they view the surgery that has a greater effect on their perception of success and being able to move on from the event. Further research using larger samples, focusing on the effects of interpersonal relationships, and the effects of role function and expectations on behaviour and attitudes, while ill or recovering from cardiac surgery, would enhance the perspective which nurses hold about this experience for women.

Furthermore, future inquiry must address the interpersonal needs that women express while ill and recovering from surgery. The needs of women who have cardiac surgery require practical definition within their relational context. In other words, nurses need to develop an understanding of how best to collaborate with women in aiding them through having cardiac surgery, without stripping them of their perception of self. Following the development of this understanding, further application and study should encompass the role which nurses have to play with women, cardiac disease, and cardiac surgery, at all three levels of illness prevention and in health promotion

(Friedman, 1992).

Conclusion

The women in this study found there were several identifiable phases in the process of having cardiac surgery. These phases were waiting, getting there, surviving, being there, and moving on. The strategies used to get through these phases of having cardiac surgery, included the assessment of relationships with others, be they family, friends, the hospital system, or God; managing, or the perception of events being under or out of control; making sense, or developing a perspective about this experience; and normalizing, or fitting the changes that come with having cardiac surgery into their lives. These strategies were utilized within the context of the core variable in this process; preserving the self. It is this key process, preserving the self, which women undergo when having cardiac surgery that is unique to their gender, and as stated earlier, warrants further study.

Relating was defined as how the women responded to themselves and others while undergoing cardiac surgery. This response highly influenced the process of having cardiac surgery primarily by affecting the perception of control. Any one relationship did not necessarily determine the way in which the entire experience of having cardiac surgery was viewed, but the quality of the relationships which the women held with others clearly affected this experience. When there was a feeling of trust in relationships, others were needed just to be there for security, to 'do for', or to be a 'watch dog'. There was a sharing with others; sharing of responsibility, role, decision-making, or control. These others were usually spouses or relatives, but could also be close friends, and in some cases, were health care personnel. This was more likely the case with women who had experienced illness before, assistance from health care personnel in the past, and were the older women in the study.

If there was distrust in the relationship, there was likely a feeling of vulnerability to judgement from others, usually related to physical progress or to role performance. When distrust ensued, there was often a need to be protective of themselves by using active means to distance themselves from those they distrusted or by using more subtle mechanisms such as denial of the illness symptoms. Loved ones were also protected from the negative aspects of having surgery actively by trying to appear 'well' or not wanting to 'impose'.

The assessment of relationships lead to situations being managed with a perception of being under or out of control. Perceiving that the situation was under control was achieved through either temporarily relinquishing this control to some other trusted individual or system, or by attaining control themselves. When relinquishing control, control was either shared with, or temporarily given to trusted others. Attaining/regaining control was possible when there was increased self confidence physically, cognitively, and emotionally, to handle a situation.

Perceiving that the situation was out of control occurred when the women felt they were floundering for control, or that control had been lost. When control was lost, it was perceived as having been taken away, or the situation was perceived as beyond the womens' control physically, emotionally, or cognitively. When floundering for control, the women experienced an awkward struggle for control which was often attempted sporadically and inappropriately. Ultimately, this was not a helpful means of getting the situation under control. Either way, control was not voluntarily given away. Yet, depending on how the women were able to make sense of the experience, and often by reflecting on past relevant experience, the feelings of control could change. The perception of relationships coupled with the personal interpretation of this experience influenced how the phases of having heart surgery were managed. These perceptions could change frequently throughout the phases.

Making sense was highly influential in all phases of having cardiac surgery. Making sense encompassed how the women in this study were able to develop a perspective about the events surrounding having cardiac surgery in relation to their 'world view'; some informants also called this 'attitude'. The elements of making sense included comparing, by reflecting on past personal or life experiences, or on the experiences of others, the women were able to gain some perspective; verifying, by evaluating and questioning they were able to confirm or substantiate an understanding; clarifying, by seeking information, or filling in the blanks, they were able to make clear the experience and thereby enhance understanding; and reasoning, through contemplation and analysis of this experience, they developed an understanding and perspective of having had surgery, or in other words, they pondered the impact of this experience on their life.

Getting through this surgery and ultimately, being able to successfully move on, was also influenced by how the woman was able to fit changes related to having the surgery into her life. This category was called normalizing and had a more physical and role related focus. The elements of 'normalizing' include the changing normal, when there was a recognized change in what should be and the women were unable to continue to feel or do what used to be normal; the evolving normal when, following change, they endured an often frustrating time of constant adjustment while learning new rules, limits and norms; and the redefining normal when in the process of recovery, they identified and accepted the 'new me' or 'new norm' for better or worse and the changes associated with having had cardiac surgery were incorporated into their self concept. Again this process was influenced by the women's ability to develop a perspective about these changes, by making sense of them.

Having cardiac surgery was much longer and difficult for those women who remained with a perception of being out of control. As identified, these perceptions were fostered by experiencing difficulty in establishing or perceiving trusting relationships, developing a perspective or creating some meaning of the situation, and integrating the physical and role related changes associated with having cardiac surgery into their lives.

The initial question that guided this study was 'What is having cardiac surgery like for women?'. In essence, much of what was found about this experience was substantiated by other research, studying both men and women. However, the fundamental interest lies in answering the question 'How is the process of having cardiac surgery unique to women?'. The findings of this study have bore a beginning answer to that question; the core variable identified in the process of having cardiac surgery of 'preserving the self'. This process is what stands as unique to women. For the women in this study, ‘preserving the self’ while getting through cardiac surgery, meant struggling with various role and interpersonal matters. The women’s perceptions of their role, through role expectations and role performance, and particularly in their associations or ‘connections’ with others, were the foundations from which they approached ‘preserving the self’ when having cardiac surgery. The identification of the process of ‘preserving the self’ came from women who had lived in the world of women having cardiac surgery, thus making this process unique to women.

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APPENDIX A

Patient Information

A study is being done about women who have heart surgery. This study will be conducted by a graduate nursing student from the University of Alberta. It is hoped that the results of this study will provide a beginning understanding of what it is like for women who have heart surgery.

An average of three interviews may be required, probably lasting for one hour each, in your home, at a time convenient to you. The interview will be tape recorded and later typed. Questions will be asked about your experience of having heart surgery.

If you think you might be interested in participating, Kathryn King will be given your name and will come to see you before you go home. She will tell you more about the study. If you decide to participate, she will want to arrange a time with you to do the first interview.

Thank you for your consideration.

APPENDIX B

Informed Consent Form

Project Title: The Experience of Women Who Have Cardiac Surgery

Investigator: Kathryn King, RN, BScN
MN Candidate
Faculty of Nursing
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Phone: 467-7509

Supervisor: Louise Jensen, RN, PhD
Professor
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The purpose of this study is to learn what it is like for women who have heart surgery.

Tape recorded interviews will be used to record your thoughts and feelings about this experience.

An average of three interviews will be done in your home at a time which is convenient for you. Each interview will last about one hour. Questions will be asked about your experience of having heart surgery. The tape recorded interviews will be typed. Your name and any information that may identify you, will be removed from the tape before it is typed. You will have a code number that is known only to me. This information will be stored in a locked cupboard. The tape may be used for further study after ethical approval is obtained. Some of your comments may be used in the final report or in talks about the study. Participation in this study is strictly voluntary. You can refuse to answer any question. You can stop the interview or decide not to give another interview, by telling me or calling my number above.

There may be no direct benefits to you from being in this study. The information that you give may be of benefit to other women having heart surgery. If you would like the results of this study, write your name and address in the space provided on the next page.

If you have any questions about the study, you may call me at the number above.

THIS IS TO CERTIFY THAT I ______________________________,
agree to participate in this study.

I have been given the chance to read and ask questions about the study. These questions have been answered in a manner that I understand.

DATE______________________

SIGNATURE__________________________________
(participant)

SIGNATURE__________________________________
(researcher)

Please send me a copy of the results of the study

Name____

Address_____________________________________

____

____

APPENDIX C

The following description is an aid in developing a general understanding of what it is like for women to have cardiac surgery. While acknowledging that each woman will experience the cardiac surgery event in a way specific to her, there are certain features of this experience that are common to the women interviewed for this study.

There seems to be several phases to having cardiac surgery. I have identified them as waiting, getting there, surviving, being there, and moving on. 'Waiting' is the period of time when the woman knows that she needs to have surgery and is waiting to enter hospital. 'Getting there' occurs when she enters hospital and is getting ready to have the surgery. 'Surviving' is the period of time when she begins to waken from the haze of disorientation following surgery and becomes aware that she is alive. 'Being there' is the phase when the work of getting better begins and ends. 'Moving on' occurs when she is able to carry on with her life apart from having had surgery. These phases are more clearly defined in the coding scheme attached.

How she moves through these phases seems to depend on a number of factors. These include the presence of trust in relationships with others (family, friends, the hospital system, and God); making sense, or how she is able to develop a perspective about this experience (some have called this 'attitude'); normalizing, or fitting the changes that come with having heart surgery into her life; and, ultimately the perception of having or not having control. Again, these processes are more clearly defined in the coding scheme attached.

How a woman experiences events related to having cardiac surgery seems to stem from how she is able to interpret the situation and make sense of it; or to develop a perspective about it in relation to her 'world view' (some informants have simply called this 'attitude'). This process will be highly influential in her development of a feeling of having or not having control. (The filled in lines on the model represent the process of making sense.) Likewise, interpretation of relationships will also be highly influential on the perceptions related to control. This is not to say that any one relationship will determine the way that having cardiac surgery is viewed, but the element of trust in these relationships will have some effect. Relationships will be viewed in one of these ways shown. If there is trust, others are needed and there is a sharing with others (sharing of responsibility, decision-making). If there is distrust in the relationship, there will likely be a feeling of vulnerability to others and protectiveness of herself and those she loves. The interpretation of the relationship leads to a feeling of having things 'under control' or 'out of control'. However, depending on the 'meaning' (her process of making sense of this) of this to the individual, the perception of control may change weather trust is acknowledged or not. Therefore, the perception of the relationship coupled with the perspective with which one views this experience will influence how the phases of having heart surgery will be managed. These perceptions may change often throughout the phases. When a situation is 'under control', the woman may give control to someone she trusts or have taken control herself. When a situation is 'out of control' she may have the feeling of lost control or be trying unsuccessfully to regain it.

Getting through this experience and ultimately, being able to successfully move on, will also be influenced by how she is able to fit changes related to having the surgery into her life. And, again this process is influenced by her ability to develop a perspective about these changes. Note the perpendicular slashes across the 'making sense' line between 'out of control' and 'redefining normal'. These are meant to highlight the likelihood that this process will be a much longer one for those who remain in a situation where they perceive a lack of control.

APPENDIX D

Coding Scheme

PHASES--Moving through the experience of having cardiac surgery

Waiting

The need for surgery is understood and acknowledged and the wait to enter hospital begins. Waiting for surgery is like being in suspended animation; when no planning of one's life can occur. There is an identified problem with getting on with life; cannot be done until obstacle of having surgery is hurtled. Having the surgery is the only focus. Plans are made for going into hospital--arrangements for entering hospital, but notably absent are concerns or plans for the time following surgery. May have symptoms of illness that worsen over time or begin to concern one. Frustration, fear, and uncertainty of not getting the surgery in time are expressed. The individual wants to get this over with.

Getting There

This usually occurs when entering to enter hospital. One can see that the wait for surgery will be over soon. Some get to surgery by emergency and others by scheduled time. Either way, there is often some easing of frustration as this is the 'beginning of the end' or the start of 'getting it over with', although some may become much more frightened of this imminent experience. This period of time lasts until time of surgery. It is described as a very active time (tests, teaching, tours--what has to be done to get ready). One may be very ill and focus only on the physical aspects of this phase--'too sick to think'. Some key phrases include 'finally here', 'made it to have surgery in time' (didn't die before surgery), 'let's get on with this', 'there really is no choice, you need surgery'.

Surviving

There is a period of lost time--a time of severe illness and/or a haze of disorientation. Yet, eventually the realization occurs of having lived through surgery. There is relief that it is over. It is often described in terms of disorientation and reorientation (fading in and out) with time and place as 'markers'. This phase varies in duration due to postoperative complications. It usually ends with a few definable events which one recalls as 'bringing back reality'.

Being There

There is an element of being in a 'survival mode' when the major concern is to continue to live and get better. The realization occurs that there is pain, worry about what happened (and what will happen--was it successful), and an awareness that there is a process of working toward getting better. This is an exhausting time physically (weak, tired), emotionally (need to reflect and evaluate, worry, humiliation), and cognitively (need to recapture cognitive abilities impaired by surgery). Now is the time when planning for recovery occurs. This phase will last through hospitalization and the recovery time at home.

Moving On

Having had the surgery can be put in the past. One is no longer living the surgical experience. This phase occurs some time after returning home. The physical, emotional and cognitive aspects of having cardiac surgery have been stabilized. Plans for the future are being made. Some also plan improvements in their life or life style to improve their perception of the future. There is hope. There may be a feeling of reassurance that what was once 'wrong' is now 'fixed'. There may be planning to pay back or give back to the 'system'. Some try to forget.

NORMALIZING--Integrating or fitting the changes associated with having cardiac surgery into one's life. There is a focus on the physical changes in this process.

Changing Normal

There is a recognized change in what should be. There are changes (symptoms of cardiac disease) which can no longer be ignored. Yet, there may be some associated denial if the changes (symptoms) are initially more subtle. Ultimately, one is unable to continue to feel or do what used to be normal.

Evolving Normal

Following change, one is in a period of learning new rules/limits/norms. One identifies actions that can be taken to help with or achieve some success in daily living activities after experiencing changes associated with surgery. This can be a frustrating time of learning and constant adjustment.

Redefining Normal

This occurs later in the process of recovery, when one identifies and accepts the 'new me'/'new norm' for better or worse. The changes associated with having had heart surgery are eventually incorporated into one's self concept.

MAKING SENSE--The development of an understanding (meaning of) and perspective (the proper relative position of objects or phenomena one perceives) of having surgery. There is a cognitive/emotional (attitudinal) focus to this process.

Comparing

By reflecting on past personal experiences (be they hospitalizations or life events) and the experiences of others (known experiences of friends and family, or observations of others in hospital), one gains some perspective of this experience. One's life experience is brought to this event and used in development of that perspective.

Verifying

Proving to be true. Through evaluating and questioning (Do I need this?, How am I doing?, Was it worth it?, Can I do this?, Is this right?, Am I normal?), one confirms or substantiates (establish by evidence) an understanding of this experience.

Clarifying

By seeking information (filling in the blanks), one can make clear the experience they are enduring thereby enhancing understanding.

Reasoning

Through contemplation and analysis of this experience, one develops an understanding and perspective of having had surgery. The impact of this experience on one's life is pondered. A major element in this process is recognition of the emotions experienced while enduring cardiac surgery. There is also some reevaluation of one's life and priorities.

MANAGING--Meeting the demands of having surgery.

Losing Control

One perceives others as being in or having taken control. The situation may also be perceived as beyond one's control physically, emotionally, or cognitively (for example becoming ill, having pain). Either way, control is not voluntarily given away. It is perceived as taken away or impossible to manage, thus leaving one feeling helpless and exposed. 'They' statements occur more in these times. There may be lack of confidence, information or trust. There may simply be the perception of lack of choice.

Relinquishing Control

Control is either shared with or temporarily given to another. One trusts in others. There is confidence in others (be they family, doctor, nurse, God). There is a sharing of information, knowledge, and feelings. By asking for help or service, one can relinquish control. 'We' statements occur more in these times.

Floundering for Control

One desires not to lose control and struggles awkwardly or helplessly for it. Action is attempted appropriately or inappropriately but sporadically. Often this occurs without regard for personal risk. Ultimately this behaviour is not usually successful in regaining control over the situation.

Attaining/Regaining Control

One takes back that which was given or perceived as taken away; control over oneself. The onset of this process is an indication there is increasing self confidence physically, cognitively, and emotionally. One is able to identify that more can be done to help oneself physically, with decision making, and critical thinking. One may begin to question what has been simply accepted as beyond control earlier. One is able to do things that others were doing.

RELATING--Responding to oneself and others while having cardiac surgery.

Needing Others

One needs someone just to be there, for security, to trust, comfort or 'to do for'. This is usually, but not always a close relative or friend (chosen few), but may be a health care person. This other may be assigned a 'watch dog' role or someone to relinquish control to and to watch over. There may be a positive change in the perception of relationships particularly if this support is unexpected.

There may not be a successful establishment of relationships with some people (those other than the 'chosen few'). There may be little or no trust in these relationships. There may be a fear of harm from others, judgement by others, or being a burden to others, which is often, but not necessarily related to physical progress or to role performance.

Protecting Others and Self

One wants to protect those loved or cared for from the negative aspects of the surgery (worry, imposing upon them). There may be guilt about what the surgery has done to others. Where others may be praised for their strength.

One tries to protect oneself from the negative aspects of having surgery. This can be a purposeful process such as choosing not to do or think about physically harmful or emotionally hurtful things. It may be an unintentional process such as denial.